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EVALUATION OF THE CONTRIBUTION OF SPECIAL PROGRAMS IN THE WASHINGTON, D.C., SCHOOLS TO THE PREDICTION AND PREVENTION OF DELINQUENCY.
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THE EFFECT OF VARIOUS ANTIDELINQUENCY SCHOOL PROGRAMS WAS STUDIED USING A SAMPLE OF 1,634 YOUTHS, 17 YEARS OF AGE. EIGHTY PERCENT OF THE SAMPLE WERE YOUTHS REFERRED TO JUVENILE COURT IN 1964-65, AND 20 PERCENT WERE WITHOUT COURT RECORDS. DATA ABOUT THESE YOUTHS WERE OBTAINED FROM SCHOOL RECORDS. INFORMATION FROM THE 1960 CENSUS ABOUT NEIGHBORHOOD FACTORS WAS ADDED. THE SCHOOL AND COMMUNITY FACTORS MOST PREDICTIVE OF DELINQUENCY RATE WERE (1) SCHOOL READING LEVEL, (2) YEARS OF EDUCATION OF ADULT POPULATION, AND (3) PROPORTION OF ADULT POPULATION WITH INCOME ABOVE $2,000. FINDINGS SHOWED THAT SUCCESS OF A SCHOOL WAS PROPORTIONAL TO THE TYPES OF FAMILIES IT SERVED, ALMOST REGARDLESS OF SUCH FACTORS AS SCHOOL SIZE, AGE OF BUILDING, PER PUPIL EXPENDITURE, OVERCROWDING, OR CLASS SIZE. IN THOSE AREAS WHERE FAMILIES WERE ASSIMILATING THEIR CHILDREN INTO MODERN ORGANIZED SOCIETY, INCLUDING SOME PREDOMINANTLY NEGRO NEIGHBORHOODS, PERFORMANCE IN SCHOOL WAS GOOD AND JUVENILE CRIME WAS MINIMAL. SCHOOLS PLAYED THEIR MOST IMPORTANT PART IN DELINQUENCY PREVENTION WITH THEIR REGULAR ACADEMIC PROGRAMS, AS THE BEST WAY TO REDUCE DELINQUENCY WAS TO REDUCE THE NUMBER OF STUDENTS WHO FAILED TO READ ADEQUATELY IN ELEMENTARY SCHOOL. (RS)

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Evaluation of the Contribution of Special Programs in the Washington, D.C., Schools to the Prediction and Prevention of Delinquency

John T. Dailey
Principal Investigator

The George Washington University
Education Research Project

EVALUATION OF THE CONTRIBUTION OF SPECIAL PROGRAMS IN THE WASHINGTON, D.C., SCHOOLS TO THE PREDICTION AND PREVENTION OF DELINQUENCY

Final Report

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ABSTRACT

Evaluation of the Contribution of Special Programs in the Washington, D.C., Schools to the Prediction and Prevention of Delinquency

The effect of various anti-delinquency programs of the District of Columbia Public Schools was investigated using a sample of 1052 17-year-old boys and 582 17-year-old girls. Samples included youth referred to Juvenile Court in 1964-1965 and a 20-percent sample of 17-year-olds without Court records. Data about these youth were obtained from school records. Information from the 1960 census about neighborhood factors was added. The school and community factors most predictive of delinquency rate were: school reading level, years of education of adult population, and proportion of adult population with income above $2000. The most effective anti-delinquency school program was the Model School Division; also effective were the STAY Program and Boys' Junior-Senior High School; not effective were juvenile institutions and Social Adjustment Classes.

It was found that success of a school is proportional to the types of families it serves, almost regardless of such factors as school size, age of building, per-pupil expenditure, overcrowding, or class size. In those areas where families are operating to assimilate their children into modern organized society, including some predominantly Negro neighborhoods, performance in school is good, and juvenile crime is minimal.

Schools play their most important part in delinquency prevention with their regular academic programs, as the best way to reduce delinquency is to reduce the number of students who fail to read adequately in elementary school.

Recommendations to schools include: extending entry age downward, instituting programs which will involve the family and school more closely, and extending the education through work-study programs beyond age sixteen.

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EVALUATION OF THE CONTRIBUTION OF SPECIAL PROGRAMS IN THE WASHINGTON, D.C., SCHOOLS TO THE PREDICTION AND PREVENTION OF DELINQUENCY

I. OBJECTIVES

The purpose of this project was to develop information concerning the evaluation and improvement of programs in the Washington, D.C., schools, as these programs relate to the prediction and prevention of delinquency and the rehabilitation of delinquents. This project was undertaken as part of the study by the President's Commission on Crime in the District of Columbia. Specific objectives included:

A. The preparation of a statistical model of the relationships between important individual and background characteristics and indices of delinquent behavior. The unique contribution that each special school program makes to the prevention of delinquency or to its rehabilitation was estimated. This model shows whether significantly less delinquent behavior is associated with certain patterns of school experiences for youth of the same socio-economic and background characteristics.

B. The inclusion of an evaluation of the following specific programs as they relate to the problem of delinquency in terms of its prevention and rehabilitation:

1. Pupil Personnel Services
    a. Testing
        1) Placement
        2) Psychological
    b. Incidence of Counseling
        1) Number of times
        2) Purpose
    c. Referral to outside-school (personnel)
        1) Medical
        2) Welfare
        3) Religious
        4) Employment
        5) Social agency
        6) Juvenile court

d. Psychological evaluation

2. Participation in the Urban Service Corps
3. Boys' and Girls' Junior-Senior High Schools
4. Twilight Schools
5. Programs to rehabilitate dropouts (STAY)
6. Extended School-Day Program
7. Model School Division
8. Social Adjustment Classes
9. Educational services provided the juvenile institutions
10. The school's relationship with other youth-serving agencies

C. The development of a methodology of analysis and of a plan of evaluation to determine the kinds of information necessary for the prediction of delinquency (and the distinctions between delinquent and non-delinquent behaviors) and for defining the pertinent factors and their correlative significance.

D. The determination of the adequacy of the present program in light of the emergence of relevant factors, and recommendations for changes in the program.

E. The development of other information requested by the President's Commission on Crime in the District of Columbia.

II. PROCEDURE

A. Samples evaluated

1. A sample of 2000 boys who were 15 years old in 1963. One thousand of these were taken representatively from 1963 school files and one thousand were taken from 1964-1965 files of Juvenile Court referrals. The two categories of cases were weighted to produce a combined sample that was equivalent for correlational purposes to a sample of the total population of 18-year-olds. The sample was based on a substantial over-sampling of delinquents and a substantial under-sampling of non-delinquents. This procedure leads to maximum sampling efficiency when only a small percentage of the youth end up in the serious offense file.

2. A similar sample of 2000 15-year-old girls.

Because of the large number of variables involved, it was not feasible to utilize the usual kinds of control groups of students who are identical with the group sampled except that they are not in some specific program. There were so many variables that it was difficult to find any two students who were exposed to exactly the same combination of factors. As a result, multivariate analyses seemed to be the best approach to the evaluation. Such techniques as factor analysis and multiple regression were employed to allow a statistical determination of the unique contribution that involvement in various programs, conditions, and factors makes to measures of delinquency.

Dealing with information about complex social behavior poses a real dilemma. Relationships are multiple and complex. Simple correlational relationships are nearly always misleading. It is possible in many cases, however, to handle a large number of interrelationships and simplify them to a much smaller number. Factor analysis is one such statistical procedure that is often used. By using factor analysis with a set of correlations or measures of interrelationships of 50 or 100 mental tests, for example, it can be shown that often as few as 10, or sometimes even fewer, mental factors account for all of the relationships and that each test is equivalent to a combination of several of these basic factors. This procedure is the basis for most current approaches to psychological measurement. It has also been used successfully in the analysis of large bodies of information about schools in relation to the performance of their students.

Another multivariate approach is multiple correlation and multiple regression. This involves computing the correlation or relationship between a measure such as reading achievement or dropping out of school and a weighted combination of a number of predictive measures or variables. This technique permits consideration of all measures simultaneously in relation to a given measure being predicted. For example, studies have been made where measures of school performance have been simultaneously related to IQ, race, socio-economic status of the family, the quality of the child's neighborhood, several aspects of the child's motivation and interests, and many aspects of the school he is attending. In such studies it is common to find that some variables fairly highly related to the measure being predicted (when taken in isolation) "wash out" when the other measures are brought into the picture. This often happens with race, for example. Race usually correlates negatively with school performance. When the full body of information about the child is considered in relation to achievement, however, race is found to have little or no correlation with achievement when all the other variables are held constant statistically. In other words, white and Negro groups that are adequately matched on other measures do not differ in school achievement. Both white and Negro students from low-income environments do poorly in school.

B. Data gathered

The first step was to prepare a statistical model of the relationships between (a) delinquent behavior, and (b) participation in various special school programs, with several important student, school, family, and neighborhood variables held constant. Multiple regression studies were done to relate each variable to pertinent aspects of the school environment. Both students and schools were used as basic statistical units. Socio-economic control variables included those found to be of greatest importance in a series of multivariate studies of Project Talent data and of D.C. school data. In the District of Columbia, median income level and other important indices for each census tract were already available from earlier studies together with important characteristics of each public school in the District and its staff and students.

Only data of record were used, and no data-gathering instruments were utilized. From these data, prediction equations indicating characteristics of delinquent students were developed and related to the expectations for existing and past educational programs and experiences. Patterns of participation in special programs, such as Boys' Junior-Senior High School and Social Adjustment Classes, were evaluated to determine the unique association of these programs with decreases in juvenile delinquency.

Other evaluation studies collected and integrated information that routinely appeared in the school or community agency records of the students. Certain specialized types of information, which were available primarily through the schools, were collected to help answer a series of questions posed by the Commission. This information included:

1. The number of youth in the school program who, because of behavior, should be removed from the regular classroom

2. The number of teachers assaulted by students during 1963, 1964, and 1965

3. The number of known assaults and shakedowns of students by other students during the past school year

4. The number of youth returned to school after placement in a juvenile institution

    a. Average time they remained in school
    b. Whether they were placed as recommended by the institution

5. The number of youth in school who are under the jurisdiction of the courts

6. How many times the police were called to the schools during the past year

7. How many schools are open in the evening to provide library tutorial services to students

The above information was not available in existing records in most cases but had to be estimated from interviews with principals and heads of various school divisions and programs. Each junior and senior high school principal was interviewed in depth for approximately one hour. Similar interviews were conducted for a number of other key individuals in special programs. The interviews were conducted by professional members of the staff of the Education Research Project and were kept as informal as possible. The purpose of the study was explained and the interviewees were asked for their views and recommendations regarding how school programs can best prevent delinquent behavior. They were asked to answer each of the items (1 - 7) above. After each interview a detailed report of the interview was written.

III. RELATED RESEARCH

In 1960 the National Inventory of Aptitudes and Abilities -- Project Talent -- (Flanagan, 1962) was administered to a nationally representative sample of approximately 450,000 students in grades 9 - 12 in 1353 secondary schools.

These youth are being followed up periodically to study their educational, vocational, and marital records. The study is being carried out by the University of Pittsburgh with support from the United States Office of Education.

With Project Talent data several studies have been made of the relationships between many school practices and many school outcomes. It is not possible to obtain absolute proof of cause and effect relationships from Project Talent data nor from any other similar statistical data based on relating past measures of behavior with each other. For example, it is not possible to prove unequivocally by statistical survey methods that higher teacher salaries cause higher school achievement. On the other hand, it is possible to do analyses that make it appear quite likely that these higher salaries may be one of the most important factors in obtaining higher achievement. At the same time, it is possible to use equivalent methods to indicate that it seems very unlikely that size of school as such is a necessary prerequisite for high achievement because there is no associational evidence at all in this direction when all factors are considered.

Data reported in the Project Talent monograph, Studies of the American High School (Dailey, 1962) seem to indicate that four school factors most closely and uniquely associated with school outcomes such as achievement, going to college, and staying in school are:

Teacher salaries
Teacher experience
Number of books in school library
Per-pupil expenditure

It should be cautioned that we cannot conclude with certainty that these factors are causing the differences in school outcomes. It may be that they are caused by some outside factors which are being reflected in these above measures. Nevertheless, their relationship is substantial even after as many as thirty of the most important school and community characteristics have been held constant in mathematical analyses.

On the other hand, we can be much more confident in concluding that many other factors are not likely to be prime causes of school excellence since they do not have any sizable unique correspondence with school outcomes. The data in Project Talent indicate that some school characteristics seem very unlikely to be prime causes of excellence of school output. Among these seem to be:

School size
Average size of classes
Age of building
Suburban location

Another study with Project Talent data (Dailey, 1965) used fifty different variables and, by factor analysis, reduced them to five common factors. The five prime dimensions isolated were:

Student achievement
Rural-urban status
Expenditure level
Teacher training
Unfavorable community environment

Of the school characteristics related to the first factor of student achievement, the highest loadings were for:

Teacher starting salary
Size of library
Per-pupil expenditure

Another finding from this factor analysis was "that such measures as region, school size, and percentage Negro do not define prime dimensions. Apparently, once one knows a school's Reading Comprehension average, Rural-Urban Status, System Per-Pupil Expenditure, Degrees per Teacher, and Boys' Dropout Rate, it is fully described and one may ignore the size, region, racial composition, and at least 41 other input and output measures." (Dailey, 1965)

IV. SURVEY OF LITERATURE

To consider the study of delinquency, one must first relate a definition of what delinquency is. Amos, Manilla, and Southwell (1965) in their fine new treatise on the subject, confront the reader with three definitions: (1) the sociological approach exemplified by James F. Short and Ivan Nye (Reported Behavior As A Criterion of Deviant Behavior) defining delinquency in terms of the legal code; (2) the socio-legalistic approach of Marshall Clinard (Sociology of Deviant Behavior) (1957) defining delinquency as "any act considered socially injurious and punishable by the state;" (3) the legalistic approach of authors such as Paul Tappan (Juvenile Delinquency) (1952) defining delinquency as a violation of law, specifically of the juvenile code of a given state.

One of the major sources of predictive factors is found in the work of Sheldon and Eleanor Glueck (Predicting Delinquency and Crime) (1959). Their recognition of predictive techniques as the key to a realistic program of delinquency prevention seems of significance in relation to this proposed study. To quote the Gluecks' publication:

> "When offenders with a certain combination of traits and factors are demonstrated to fail, ...intensive study of their characteristics...could lead to the development of treatments better calculated to reduce recidivism....Prediction tables can be very valuable as screening devices in selecting early in life those children whose makeup and background...indicate, in the trustworthy reflection of systematically organized past experience, a high delinquency potential. This would permit timely clinical and social intervention, which gives the greatest promise of redirecting the endangered child." (pp. 15-16)

The significance of the importance attached to the above quotation is magnified when one considers the results of a sample of 500 persistent delinquents in Boston (Glueck and Glueck, 1950):

A. The average age at the onset of maladapted behavior was somewhat over eight years.

B. Almost half the groups showed clear signs of anti-sociality at seven years of age or younger.

C. Nine-tenths showed signs of anti-social behavior at age ten or younger.

D. The average age at the onset of delinquent behavior was nine and one-half years.

The Glueck studies are a refinement of studies by Burgess (1928) whose 21 factors, subdivided into a number of categories, set the stage as the first prediction study.

Two other Glueck studies, involving the construction of prediction tables, are worth mentioning. One of these, "Juvenile Delinquents Grown Up" (Glueck, 1940), is a follow-up of the original 500 cases from their first study (Glueck, 1930). One of the major findings of this study was the improvement in behavior with advancing age. Prediction tables were constructed by selecting 5 factors out of 60 examined showing the highest correlation with success or failure. They were: birthplace of father (.26), birthplace of mother (.22), time parents were in the United States (.20), age of offender at the time of first misbehavior (.22), and the religion of parents (.20).

In the Gluecks' study entitled "Five Hundred Delinquent Women" (1934), 285 factors were examined. Of the 15 factors showing the highest association to non-recidivism, 5 were used to construct a prediction table: retardation in school, neighborhood influences, steadiness of employment, economic responsibility, and mental abnormality.

The accuracy of prediction based on stable predictors (as versus unstable ones) was dealt with by Albert Reiss, Jr. (1951). Utilizing a hypothesis that a small number of stable predictors is likely to yield the greatest accuracy and efficiency, he found the following 5 factors as stable predictors: (a) economic status of family: dependent; (b) truancy: usually truant; (c) deportment record in school: poor or very poor; (d) adequacy of personality control: relatively inadequate ego and super-ego controls; and (e) recommendations for treatment.

Various authorities in the field have compiled statistics in juvenile offenses numbering 1,200,000 cases in 1963 (The FBI Uniform Crime Reports and the Children's Bureau Juvenile Court Statistics). In a publication by Amos already mentioned, the author corroborates the findings of other writers (i.e., Richard Perlman) who feel that the rate of delinquency is higher today than in past years. The evidence cannot be overlooked that, even while considering the increase of population, delinquency increased 48 percent from 1952 to 1956.

V. INFORMATION FROM INTERVIEWS WITH SECONDARY SCHOOL PRINCIPALS

The principals in the District of Columbia junior and senior high schools were interviewed in depth about their schools in relation to crime and juvenile delinquency. They were most cooperative and discussed at length their basic philosophies of education and delinquency as well as giving detailed information about their school and its programs.

It is apparent that crime is a very serious problem in most schools. Theft is very common and difficult to control. Other delinquent behavior is also frequently found. One of the biggest problems is control of outsiders who infiltrate the buildings whenever they can. However, organized patrol and guard procedures operate to keep this from getting out of hand. The problem of infiltration of the school buildings after normal school hours is one that is particularly difficult to handle. Buildings are huge and not laid out to facilitate using just one section such as the library or a few classrooms for tutorial or similar services. It would be profitable to study new ways of controlling access to school buildings after hours in order to facilitate greater use of them at minimum expense. Use of teacher-aides or other part-time personnel for this purpose might be a good investment. This whole problem should also profit from examination by a good systems research or operations research group.

Another difficult problem is controlling the students after school. At some schools many outsiders gather to await the students when they leave the school. Many of these are there to make "pick-ups" among the girls. Extortion of students also seems most frequent on the way to and from school and to some extent during lunch period. Control of the behavior of students once they leave the school grounds seems to be an almost impossible problem. However, when needed, police patrols are used to maintain order in the streets when school is dismissed.

While the schools have very severe problems with many of their students, the schools are definitely not "blackboard jungles." The principals seem to be in control of the situation and do not permit students to disrupt the educational process. Real trouble-makers are removed from the classrooms and transferred to special programs or dismissed in many cases if they are over age 16.

Particular emphasis in the interviews was given to finding out about how often students assault teachers. This does happen, of course, but serious assaults do not seem to be at all common. When assaults occur, they are probably by a seriously disturbed student. The other students understand that serious disciplinary trouble in the classroom will not be tolerated and that serious trouble-makers will be removed.

Most of the principals gave the impression of being able, dedicated administrators who thoroughly understand their students, and had sympathy for and understanding of the basic roots of their problems. Many of the principals have shared some of the same problems as their disadvantaged students. They believe that most of the inadequate learning and undesirable behavior of their students stem from the poverty of their environment and from inadequate home life. They all concur in the belief that delinquent behavior begins very early in the lower grades and has its roots in failure of many children to cope with their school work and to learn to read. As a result, from the third or fourth grade on, school represents only an unending process of frustration and failure and leads to rejection of the school and a feeling of alienation from society. This alienation, of course, is the heart of delinquency and crime.

An attempt was made to estimate the number of youth in the school program who, because of behavior, should be removed from the regular classroom. One must define this question before it can be answered at the local school level. The interpretation of a "regular classroom" as defined would be all those classes other than ones expressly set up for the nonconforming or behavior-problem child (i.e., Social Adjustment Classes, Boys' Junior-Senior High School) or for the child who, because of physical or psychological handicaps, cannot succeed in a regular classroom. The question to be answered relates only to the first of these two "irregular classroom" situations: the student who, because of behavior, should be removed.

There is probably not a significant number of students now in regular classrooms who should be placed in other academic programs. This was indicated by various principals interviewed. Disruptive students are not permitted to remain in regular classes.

A study was made to estimate the number of youth returned to school after placement in a juvenile institution. Figures procured from personnel at Cedar Knoll show that during the school year 1965-1966, 492 children were released. Of these, 384 returned to the public schools of the District of Columbia. Of the 195 children released from Maple Glen, 193 returned to the public schools. Thus, a total of 685 children were returned to the public schools after placement in a juvenile institution.

This figure does not account for a small percentage of students who were placed in the National Training School or Lorton Center or similar institutions. Of the group released from Cedar Knoll and Maple Glen, some 112 were beyond the compulsory school age. Another small group would include those who have moved from the geographic jurisdiction of the D.C. School System. When a child is recommended for release from the juvenile institution, the Department of Special Education of the District of Columbia Schools receives a transcript of the child's academic record and other activities while there. A suggested level of academic placement is recommended. Generally, the child is placed as recommended.

Many of the D.C. secondary school principals and the present Superintendent of the Children's Center felt that a "halfway house" type of day school should be established to bridge the gap between the correctional institution and the placement back to the public schools. At present, the child is returned to the neighborhood school which serves his address. Many principals feel that the child is thus at a disadvantage because he is returned to the school and the community in which he had previously demonstrated delinquent behavior.

It was found that under the present system 24 percent of the children admitted to the Children's Center have to be returned.

Attempts were made to estimate the number of youth who are under the jurisdiction of the courts at each of the schools visited. Most principals or assistant principals stated this number would be hard to determine as communication between the schools and police precincts is not as good as one might desire.

Schools do have some knowledge of most of the cases but such records are usually kept by assistant principals who must do a great deal of investigating to find this information. Even the best of the assistant principals does not know how complete his records are.

The number of times the police were called to the schools during the past school year was also investigated. Most schools seemed hesitant to reveal this information, and records are seldom kept. The evidence demonstrates that this is not an acute problem. Although there might be as many as 100 calls placed to the various precincts, this would average only about two per year per school -- not an alarming number.

Police patrol many schools as part of their regular "beat." This includes periodic stops at the school and also some patrolling of the area before and after school. Some schools require as many as six officers to control traffic and maintain order when school is let out.

The question of the school's legal jurisdiction over the student on his way to and from school is one of primary importance to most principals. They remarked that there is little that can be done by school personnel to protect the student while in transit to and from school. It is at this time, however, that most of the problems of assault and shakedown occur. This matter should be considered by the community as a whole.

Below are composites of the reports from interviews with several principals of junior and senior high schools whose philosophies of education and delinquency appeared to be "tolerant" and "strict."

A. The Junior High School Principal -- "Tolerant" Philosophy

Junior high school principals who have a "tolerant" viewpoint feel that most problems with students can be solved within the normal school program.

Extortion is considered a minor problem by many principals, although they admit not knowing exactly how much extortion goes on or who the offenders are.

Suspension of trouble-makers or the sending of trouble-makers to special schools, such as Boys' Junior-Senior High, is used only as a last resort by many principals. One principal admits doing everything possible for a trouble-maker to prevent the possibility of a student's establishing a police record.

Many principals feel that the junior high school youngster is too young and too active to be expected to remain quiet all day. Talking in the halls is often allowed so long as the students are not talkative in the classrooms. A few schools have social dancing at lunch hour in a section of the cafeteria or an activity room.

Since many pupils come from very poor home environments, understanding often is needed. If a child is late for school, for example, one principal's method is to let the tardy student "cool off" before being asked why he is tardy.

Many principals criticized the court's actions in handling problem children. Schools and courts often do not reach the source of the trouble. Many principals feel that Boys' Junior-Senior High is a good school to help the boys "straighten out." Boys need time to settle down, and room to grow and become individuals. Efforts must be made to help the child learn his identity and develop a good self-image. Often, however, too long a time elapses between the diagnosis of a problem and the attention given to it. Such a delay is costly and unnecessary. School and court actions must be coordinated, for often the schools are not even aware of all those pupils who are under court jurisdiction.

A "halfway house" type of day school was suggested for those students who have been in trouble. When students are returned directly to the same environment from which they came, they usually get into trouble again.

A school for disturbed and retarded children is also necessary to provide the expert help that these students need.

Principals mentioned in addition that a lack of communication between principals and community creates tension that can lead to problems in the schools.

B. The Junior High School Principal -- "Strict" Philosophy

Here is a composite of the "strict" view presented by some of the junior high school principals who were interviewed:

Many of the children have a built-in determination to resist authority. Many also have an adverse reaction to women. These children need to learn pride in a job well done so as to overcome their feelings of inferiority.

The principal must do whatever benefits the student body as a whole. When a student creates a continued disturbance in the school and jeopardizes the learning opportunity of other students, that student must be removed. Keeping problem children in the regular school program is no real solution to any problem.

Extortion -- which is very hard to prove -- has been handled by some schools by not allowing any passing of money between students in the cafeteria.

Most principals feel that delinquency problems start in the elementary schools. The problems continue because of the leniency of the community in dealing with delinquents. Juvenile Court does not prosecute as often as it should. At one school, there is a gang of four brothers who have attended several different schools and who have terrorized the schools and the communities. Evidence of the vicious behavior of these brothers has been presented, but no action has been taken. Many children lie a great deal, but there is never any investigation to uncover the truth. Another child was caught stealing; no action was taken. The correction process needs to be overhauled.

Often steps are not taken until the child has gone too far. Even then, attention is superficial, and the child often gets into trouble again. The Court should take a stronger attitude toward problems in the schools. Coordination between schools and the Court is poor. Technicalities in the law sometimes provide a means for an offender to escape punishment. Prevention is the best method of dealing with delinquency. Parents must take more responsibility. Activities of case workers and juvenile officers must be better coordinated.

Several principals suggested that a special school for emotionally disturbed children should be established. Such a school would enable the children to receive the attention they need for their special problems.

Some principals felt that the school system as a whole was approaching the problem of the culturally deprived children in the wrong way. More money should be set aside for clinics, increased staff, and other preventive measures.

C. The Senior High School Principal -- "Tolerant" Philosophy

Some senior high school principals tended to be "tolerant" in their handling of students. Rather than suspend trouble-makers, these principals suggested ways to keep the students in school by providing programs which would give a measure of success to the students.

Many students become problems and/or dropouts because of learning difficulties, or because the curriculum does not seem to give them what they are looking for. Many students are not academically suited to college work and so see little significance in the academic program. Work-training programs would keep potential dropouts in school. The present system is just not right for all students.

Many schools do not now have evening tutorial services available. Although community tutoring is sometimes available, many of the principals feel that a school-based tutoring service would provide help to slow learners and others who are having difficulties. By aiding the students in developing their abilities, and by thus eliminating their frustration, the evening tutorial service would raise the achievement level of participating students and in that way act as a curb to juvenile delinquency.

Principals also suggested that a special program be set up to handle the problems of students -- particularly boys -- who are over the regular school age. Boys between 18 and 21 usually have interests which are different from those of younger students.

A "halfway house" type of day school for students who have been released from institutions was suggested by some principals.

The principal at a school for problem boys stressed the need for community tolerance and acceptance of the boys into inter-school activities. This principal's efforts to set up an inter-mural schedule were thwarted because no other schools would consent to play against his students.

Principals at the Twilight and Boys' Junior-Senior High Schools stress the boys' need for friendship, understanding, and a favorable self-image.

The principals point out that there are many in the District of Columbia who need special help, and that society should not demand more from a child than the child is able to produce. These principals suggest a larger shop program; a good breakfast, provided by the school; an early morning opening for the special schools, to eliminate the feeling of difference from regular schools; and programs as early as fourth grade to handle the problems of these students.

The most important item stressed in the handling of poor learners and potential dropouts is the necessity for removing strong academic competition, and providing a program which will allow each student a sense of accomplishment. Often these problem pupils must be taught good manners, respect for women, and other "niceties" that the middle-class person takes for granted. Children cannot be expected to have good manners until they are taught. When the home fails, the school must provide the teaching.

D. The Senior High School Principal -- "Strict" Philosophy

Principals in the senior high schools were often "strict" in their approach to handling school problems. Many of these principals feel that social workers coddle delinquent children. They feel there is evidence of a great need for more cooperation between city law authorities and schools. Often a school does not receive notification of students who are under court jurisdiction.

Most of the principals feel that the school, since it is a center of academic activity, should not be expected to adjust to the differing ideas of parents and children, but that the parents and children must learn to adjust to the school.

Troublesome students are not coddled by most principals. If troublesome students do not respond to the efforts of teachers and counselors, they are suspended or expelled. Over-age trouble-makers are not re-admitted. These principals urge stronger disciplinary action for known offenders.

The principals feel that programs for problem children should begin in elementary schools. A different curriculum should be set up for those who cannot meet the norm. The norm is unrealistic for these children. A program on a level at which these students are able to achieve would be a realistic solution to their academic problems.

Special summer programs for socially and emotionally deprived children should be started. The poor achiever should be helped to earn a legal living. Many principals feel that since such a large proportion of students in the District of Columbia are Negro, responsible members of the Negro community should assume more interest and responsibility. Also, better qualified people should be trained to handle special summer programs.

One principal suggested that parents need special training, also. Those parents on welfare or those who are receiving job aid should face compulsory education. Many need help in reading and other skills.

Other suggestions for improving education of the deprived were:

1. More clerical help for teachers and counselors to allow them to concentrate on the special needs of the students.

2. More counselors to provide follow-through to the home, especially for girl students.

3. More remedial reading teachers. Large numbers of students have serious reading problems.

4. More librarians and longer hours for school libraries. School libraries should be open at night, on Saturdays, and during the summer.

5. Special summer programs, including sports competition and study projects.

VI. DESCRIPTION OF THE PROGRAMS STUDIED

Education must be organized so that changes may be meaningful. Research and evaluation must be an on-going process to provide knowledge of successes and failures as education evolves. "...nothing hinders educational progress as much as the absence of an organizational structure within the educational system, specifically designed to recognize obsolescence as well as plan innovation. We must have an orderly means of shedding outworn educational structures, and creating new and better relationships for experimentation and innovation." (Ianni, 1965)

The District of Columbia Public Schools have shown an inclination to move in this direction during the past few years. Many pilot programs have found their way into the administrative and curricular structures, and these programs are being studied carefully. Various school personnel, including program directors and their assistants, school administrators, Board of Education administrators, and others, were interviewed to accumulate data for the description and evaluation of school and community programs associated with the prevention of juvenile delinquency. Programs were evaluated as much as possible by actual visits to the premises of each program so that an idea of their facilities, programs, and personnel might be better gleaned. This report summarizes a description and evaluation of them.

A. Social Adjustment Classes

Various elementary and secondary schools offer an in-house, or in-school, program for boys, and in some cases for girls, whose behavior is such that they can no longer be contained in a regular classroom situation but which is not yet considered bad enough for them to be placed in a program like Boys' Junior-Senior High School.

Referral to the classes can be initiated by any member of the faculty, or by a counselor, assistant principal, or principal. Since this is an in-house operation, the individual school is almost completely autonomous. Criteria for referral and admission, curricular offerings, and the extent of departmentalization differ from school to school. The principal's philosophy seems to be the basic criterion used for establishing such programs. Most of the students referred have histories of very poor achievement, poor attendance, little if any academic motivation, and are called "the trouble-makers" by faculty members. The incidence of delinquency is quite high among these students, although broken home situations do not seem to be as high as might be expected from such a group. It must be recognized, however, that a home need not be without one or both parents to be a negative factor in the student's environment.

Classrooms are usually self-contained in order to minimize possible contact with other students. One teacher adept at handling these youngsters spends most of the day instructing and overseeing their activities. In some schools, however, classrooms are not completely self-contained and students are allowed to attend regular classes for some portion of their program (i.e., shop, physical education, music, etc.). Still other schools offer a core program taught by one teacher. Heavy emphasis is placed in all programs on school-home communication and on physical exercise.

The social adjustment classes seem to vary in nature from school to school according to the basic philosophy of the principals. Many of them do not appear to like social adjustment classes and some, in fact, do not use them at all.

B. School To Aid Youth (STAY School)

Two years ago, The D.C. Schools initiated a successful summer program to return dropouts to school. Counselors were sent to the homes of students who had dropped out of school in an attempt to bring them back to finish their high school education. As a result of this program, some students have taken advantage of a late afternoon and evening school which is offered. A "School To Aid Youth," known as the "STAY School," was begun experimentally, with its location at Spingarn High School. The school enrolled about 180 returning students in grades 9-12 last year and graduated 21 students. During the academic year 1965-66, approximately 900 students enrolled. They attended four one-hour classes each night for five nights a week.

The school is staffed by regular certified D.C. Public School teachers who are paid a differential sum for their work. Some staffing problems have been evidenced. The staff has been quite transient, and this frequent change has hindered continuity of instruction. Only one counselor has been assigned to the school, which houses many students with varied problems. The students pursue regular course work toward the completion of graduation requirements, without consideration of their many reasons for leaving school, including their problems in relating to an academic atmosphere. A recent study points to the significance of this reason for dropping out of school. Warren T. Johnson (1964) administered an attitude survey questionnaire form to 107 delinquent boys and girls at a reception center that processes all juveniles in the State of Minnesota (1964). In general, the sample group showed a positive attitude toward the school staff and school social life, but did not feel that the curriculum was meeting their particular needs. There was also a noticeable lack of extracurricular school activity among this group and a lack of parental involvement in school functions. In light of this survey, it appears that perhaps the high dropout rate could be reduced through curriculum revisions and a closer look at the causal factors of behavior problems in school.

C. Twilight Schools

Two centers, one at Francis Junior High School and a second at Sousa Junior High School, offer a late afternoon educational and counseling program (3:30 P.M. to 7:30 P.M.) designed for boys 14 years of age and older. The present enrollment numbers about 50 boys whose behavior has degenerated beyond the tolerance of a regular school classroom environment. Most, if not all, of these students have been enrolled in the basic track, are at least two or three years retarded in academic achievement, have poor attendance records, and often are dropouts. It is felt that the pressure of competition has caused a situation with which these individuals cannot deal effectively. Broken homes and emotional problems are prevalent among these youngsters. Many of them were formerly placed in social adjustment classes. Students referred to the program, nonetheless, are those whose reactions and defenses are not deeply rooted aspects of their personality.

The program is not equipped, as to either personnel or curricula, to make significant changes in these students, but serves as a temporary setting until such time as the boys can find "wholesome placement" in the community. Much effort is placed on social rehabilitation. The staff is a closely knit group of men, all of whom participate in the gym and athletic program. Only male teachers are used in the program, since most of the boys are from mother-dominated homes and show antagonism toward female teachers; identification with a mature male is highly stressed. The curriculum is simple and follows the same course of study used by the regular schools. General math, English, remedial reading, general shop, and physical education form the area of instruction. These studies are incorporated with group guidance, individual counseling, and tutoring. Some field trips and social dances are scheduled.

Discipline is not a major problem. Although these students could not be handled under any previous school situation, it is felt that the pressure to succeed academically has been removed and the students are therefore not so tense. Competition is removed so the boys do not feel they must keep up with a level that is beyond their ability.

Once again, this program's existence is necessitated by the fact that these students could not otherwise be handled. They are not emotionally disturbed, but rather they exhibit behavior that does not conform to a norm established by the classroom teacher.

> "Behavior exhibited may indicate that the emotional health or character development of a youngster is in some jeopardy. However, it may also be the symptom of a healthy youngster who is certainly in conflict, but is the victim of an external world doing something to him that shouldn't happen. The child whose life is set awry responds by trying to fend off the conflict." (Redl, 1965)

It is not necessarily true that his conflict is with the school environment, but the behavioral outcome nevertheless spills over into the school. It is possible that placing such a child in a program like this one, however, treats only the effect of his behavior and not the cause.

D. Boys' Junior-Senior High School

With a population averaging about sixty boys, Boys' Junior-Senior High School operates during the regular academic school year for boys who, because of nonconforming and disruptive behavior, must be taken out of the regular classroom and placed with people trained to handle them. The school serves the total District of Columbia school area. Referral comes from school principals and the Department of Pupil Appraisal.

Boys remain on the average for one year at Boys' Junior-Senior High School. Many of the boys have serious emotional and behavioral problems. Special help is given to each boy to aid him in achieving a sense of accomplishment in both his academic work and in the area of personal relationships. The principal of Boys' Junior-Senior High School feels that good manners and high standards cannot be expected from these boys until they have been taught these standards. Because of the limited enrollment, a great deal of individual and special attention to each student is possible.

The principal's philosophy with the boys is one of patience, understanding, and discipline. Each boy is judged on his performance there -- not on the past -- and is given the chance to "change with change." Of the thirteen boys returned to the regular public schools in 1964-65, twelve have made satisfactory adjustment. One was returned to Boys' Junior-Senior High School.

Boys' Junior-Senior High School is discussed to some extent in the section entitled "Analysis and Evaluation of the Data." The reader is referred to that chapter for the statistical analysis of the value of this program based on the criterion of juvenile delinquency prevention. The program seems to be an effective one.

E. Webster School for Girls

Webster School for Girls, an experimental program for the rehabilitation of pregnant school-age girls, was begun in the fall of 1963. The program, financed by a grant from the Children's Bureau of the Department of Health, Education, and Welfare, features an interdisciplinary approach centered around the school. This special school is intended to achieve several primary objectives:

> The girls should be able to continue their studies while awaiting the birth of their child, and they later should be encouraged and helped to complete their high school education.
>
> Families should be encouraged not to reject these girls and should be advised on how they can help the girl return to as normal a life as is possible.
>
> Proper pre-natal examination and care should be provided, and the girls should be instructed in how to care for the child.

Teachers, social workers, psychologists, nurses, doctors, and nutritionists are employed in this program. The school thus is an example of a cooperative effort by the District Public Schools and the District Departments of Public Health and Public Welfare. The Federal grant was for a three-year program beginning in fiscal year 1964 and ending in fiscal year 1966. An evaluation of the program will be undertaken and completed during fiscal year 1966 under the auspices of Title I evaluation funds.

The school appears to have been accepted. Of the 1043 pregnancies of girls under 18 reported in the District, 541 were referred to this school. The school enrolled 142 girls during 1963-64. Only about half of that number are enrolled at any given time since each girl attends this school only from the time she is required to leave her regular school until her child is born, a period of four to six months. Records indicate that more of these girls are returning to regular school after delivery than would normally be the case. About 90 percent of the 142 girls returned to school initially, as compared to about 67 percent for girls who did not attend Webster School. Of this 90 percent, 67 percent were still enrolled in June 1965. Although a comparable figure for the control group is not available, it is virtually certain that this group also suffered considerable dropout. Thus, it appears reasonable to estimate that about 20-25 percent of the girls attending this school would not have continued their education if this school had not been available to them.

A fiscal year 1967 request has been made for adequate funds to provide for 200 girls at a time, or 400 girls during the year. This is less than the number that applied for entrance last year. The staff-student ratio is about 15:1. This is certainly not out of line with staffing for other children with severe problems. One fact should be noted especially in considering this school: assuming an average expense of $2500 per year for a family on welfare, if only 10 percent of these girls or about 40 girls achieve economic independence because of this school, the annual savings in welfare payments could in the first year alone almost equal the annual cost of the school, and these savings would repay this investment perhaps 20 or 30 times over. The general welfare is promoted by helping persons to contribute to, rather than depend upon, our national resources.

Many studies of this type of facility have been reported in the literature. "A Limited Research Study of Pregnant Girls in a Detention Setting" by McLean, Yurdin, and Kirschner (1965) should be mentioned here. Fifty pregnant girls were studied after admission to juvenile detention. The study attempts to evaluate the appropriateness of the detention setting and services available or lacking. Possible alternatives to detention are to be forthcoming. Results of this study apparently have not been published, but should be investigated.

F. Model School Division

A geographically bounded part of the District of Columbia that includes Cardozo High School, Bell Vocational High School, Banneker Junior High School, Shaw Junior High School, and their feeder elementary schools, was established as the Model School Division. Various projects are presently in operation and include the following: (1) Developmental and Remedial Reading; (2) New Curricula at the Secondary Level (four studies); (3) Organizational Patterns (three studies); (4) Community-School Service Programs (five studies); and (5) Special Projects (i.e., Pre-School Program and Project Discovery). A complete list of the various projects (numbering 29) follows. This Model School Division is literally saturated with projects, all of which deal with the problems of "deprivation," "delinquency," "dropouts," "financial need," etc. Many projects seem to overlap in purpose, but the service rendered reaches literally every family and child in this locale. Much controversy has arisen over the program. Support has come from the United Planning Organization, the United States Office of Education; the Office of Economic Opportunity; the Manpower, Development, and Training Act;

various philanthropic individuals and concerns; and the D.C. Public School system, which has been charged with the fiscal and administrative responsibility for the program.

Programs in the Model School Division:

1. Developmental and Remedial Reading

a. Words in Color: A beginning reading program which makes the English language phonetic through the use of color to help the learner associate the image with the sound.

b. Initial Teaching Alphabet: A beginning reading program which uses 44 symbols for the 44 phonemes of the English language.

c. Science Research Associates: A program of multi-level instruction in reading and listening skills using kits (laboratories) of reading booklets.

d. Basal Progressive Choice: A programmed method involving small steps of sequential progression under the direction of the classroom teacher.

e. Visual Conceptional Reading (Vicore): An approach which assumes a basal reading capability and builds upon it to develop the ability to understand groups of words while reading in a downward pattern on the page.

f. Accelerated Progressive Choice: A self-contained method of teaching reading skills by presenting the material in small segments and building up skills in cumulative fashion.

2. New Curricula for the Secondary Level

a. English in Every Classroom: Involves all students and teachers in regular, systematic writing of compositions and seeks to encourage and improve reading through the use of paperback books, magazines, and newspapers.

b. Communications Laboratories: Provides individual and group instruction in a laboratory setting for students who have basic deficiencies in reading, listening, and speaking.

c. Secondary School Mathematics Laboratories: A program involving the use of equipped laboratories to provide individual and group instruction in mathematics.

d. Two-Year Elementary Algebra Sequence: Provides an opportunity to begin the study of elementary algebra at the ninth-grade level and to proceed at a slower pace so that the course is completed at the end of two years.

3. Organizational Patterns

a. Ungraded Primary: Establishes an ungraded sequence, beginning with the first grade, in which children progress by course units and ability level rather than by grades and grade accomplishment.

b. Ungraded Intermediate Sequences: Establishes an ungraded sequence, beginning with grade four, in which children progress by course units and ability level rather than by grades and grade accomplishment.

c. Associate Team Teaching in the Intermediate Grades: Provides ungraded intermediate sequence supplement to the regular instructional program through the use of associative-team teaching and multi-level materials to meet individual and group needs of children in the special academic curriculum and in slow learner classes.

4. Community-School Service Program

a. General: After-school use of library facilities from 4 to 8 P.M.

b. University Volunteers: Provides for elementary school children a program of after-school clubs and other activities that will teach, provide enjoyment, and enrich.

c. Reading and Tutoring: Provides remedial reading instruction and assistance with school work and help in improving study skills and habits.

d. Double Barrel: Provides informal counseling and other help to potentially delinquent elementary school children by using college students.

e. Parent Education: Provides training on Saturday morning for parents and their preschool children who are not enrolled in preschool programs or in kindergartens.

5. Special Projects

a. Preschool Program: Provides an instructional and a day-care program for disadvantaged children, 3 to 5 years of age, and an educational program for their parents.

b. Project Discovery: A program involving extensive and intensive use of audiovisual materials to determine the effect of the learning situation on children's learning behavior when materials, projection equipment, and utilization problems are solved or minimized.

c. Project in Urban Teaching: A program which places interns (teacher trainees) in area schools to teach part time, engage in field work in the community, and assist in curriculum development for the purpose of encouraging interest in teaching in Inner City schools and helping the disadvantaged youngster and his family.

d. Neighborhood Youth Corps: A program which provides 32 hours per week employment for out-of-school youth and from 5 to 15 hours of employment for in-school youth with the hope of teaching job skills, improving work habits, etc.

e. Summer Institute Follow-Up: Provides a series of workshops for teachers to implement the new curricula to which they were introduced during the Summer Institutes of 1965 and to provide them with teacher-aides.

f. Early Morning Physical Fitness and Breakfast Program: Provides a program of daily exercises and games, shower baths, and nutritive breakfasts for elementary school boys who may be potential school dropouts, for the purpose of developing self-confidence, self-discipline, and wholesome attitudes toward school.

g. Cultural Enrichment: Exposes children, youth, and adults to musical, dramatic, and dance performances, and to viewing other art forms and artists at work.

h. Teacher-Aide Program (TAP): Designed to provide individualized treatment for culturally disadvantaged children. This program utilizes teacher-aides to assist classroom teachers in clerical, remedial, enrichment, and instructional activities.

i. 1-B Work Scholarship Program

j. Afternoon (Extended School Day) Community School

k. Saturday Schools

The Model School Division is involved in much controversy and has had numerous administrative and operational problems. It appears doubtful that this is the best way to organize for educational change. However, numerous special anti-delinquency programs have been launched by it and the statistical studies indicate that there is now less delinquency in the target area than would be expected from past experience and from the demographic characteristics of the area.

G. D.C. Children's Center

Children's Center is located at Laurel, Maryland, and serves the District of Columbia School System as an institution for juvenile delinquents and mentally retarded children. The Center includes Maple Glen, a juvenile institution for boys up to and including 10 years of age; Cedar Knoll, an institution for all girls; and a center for the mentally retarded of all ages. Children with juvenile records requiring institutionalized placement are committed by the Juvenile Court to the Department of Public Welfare. The average length of stay at Maple Glen or Cedar Knoll is 12 months. Twenty-four percent of the children are sent back to Maple Glen or Cedar Knoll after their first release. This figure seems higher than reports of similar situations in other geographic areas have shown (Smith, 1965).

During the fiscal year 1964-65 the enrollment and releases were as follows:

	Cedar Knoll	Maple Glen
Enrollment as of July 1964	513	219
Admitted during 1964-65	524	215
Released during 1964-65	492	195
Remaining as of June 1965	545	239

Of the 492 children released from Cedar Knoll, 384 were returned to the Public Schools of the District of Columbia. One hundred twelve of the group not returned to the Public Schools were over the compulsory school age. Of the 195 children from Maple Glen, 193 were returned to the Public Schools of the District of Columbia. When the staff of Children's Center recommends the release of a child, a transcript of all of the child's activities is sent to the Department of Public Welfare and to the Supervisor of Special Education of Public Schools. The Department of Special Education places the child again in the Public Schools.

The educational program for the juvenile delinquent at Children's Center is non-graded with emphasis on (1) a remedial program in reading, language arts, and math; (2) a vocational and work training program; and (3) an athletic and recreational program. Teachers and supervisors at the Children's Center must have qualifications equal to those required for teaching in the public schools. The staff meets to review the progress of each child at the end of the first month and then every 3 months. The initial grade placement of the child is made on the basis of the reading achievement score in relation to chronological age. The program, however, is flexible, especially since the average child at Maple Glen or Cedar Knoll is 4 years retarded in academic achievement. A shop and vocational training program is available but at present is limited in both depth and scope. The present Superintendent of Children's Center strongly recommends that the Vocational and Work Training Program be expanded to give the depth of preparation necessary for students to get jobs. An effort is made to find jobs in the Laurel Community for the older children, especially those who are the potential dropouts. A group of 56 boys and girls from Cedar Knoll earned $11,000 in 1964-1965.

Recommendation for release is based not only on the child's progress at the institution, but also the situation into which the child will return. The child may make sufficient progress at the institution to be recommended for release after three months, but if the home and community situation has not improved, release is not recommended until every effort has been made to improve the home and community environment.

It is recommended that a "halfway house" be established as a buffer between the correctional institution and the community. In some cases, it would be wise to place the child first in an institution in the neighborhood where he lives. The child would live in the institution under supervision but would attend the public schools. It seems commensurate with present-day philosophy for some children released from Maple Glen or Cedar Knoll to be placed in a similar institution before returning to their homes. This would aid in the re-adjustment to the home and the community. It is also recommended that there be a separate institution for severely emotionally disturbed children. Pregnant girls should not be sent to Children's Center; rather, a special program such as that presently in effect at the Webster School For Girls (see description and evaluation of this program) might better serve the needs of this adolescent group. A recent publication suggests many criteria and programs for such a group, placing considerable emphasis on the suggestion that mental health is most heavily influenced by interaction among human beings and that the peer group is most vital to the formation of attitudes and self-image in the adolescent (Konopka, 1965).

While institutions such as the Children's Center seem necessary, they do not seem to be an effective means of preventing later court referral. Alternative solutions to placement in juvenile institutions should be utilized to the greatest possible extent.

H. Extended School-Day Program

Miller, Terrell, and Langley Junior High Schools house an extended school-day program which presently serves about 900 students. The program will be offered during the summer (1966) at both Randall and Langley Junior High Schools. It serves individuals who are (1) disadvantaged pupils in need of remedial work and development of their academic performance; (2) able and talented pupils who are disadvantaged and need special help. The schools experiment with different teaching techniques and methods of increasing motivation. Incorporated in the program is the concept of the expansion of the role of the school as a component of the community. The role of the school as an agent of social change seems clearly indicated. One wonders, however, whether the schools should rightfully assume this responsibility or whether other agencies within the community, such as social workers, and the United Planning Organization and its affiliated programs, could better handle problems.

Most courses taught are not for credit. The students served range from early elementary school children to adults. One program at Terrell Junior High School serves 35 indigent and blind people, providing them with transportation and with instruction in Braille so they may proceed to such courses as typing and business machine operation. Students, who come on a voluntary basis, include both high-achieving students who wish to enrich or accelerate their present program and academically weak students desirous of various types of remedial work.

Teachers are assigned to this program on a regular salary basis, most of them not teaching during the day. Because of the shortage of some types of teachers (i.e., Industrial Arts teachers), however, a few teachers assigned to regular day schools do teach in this program.

The Model School Division has proposed an extended school-day program at both the elementary and secondary levels. At the elementary level the program will operate in ten schools every Saturday morning from 9:00 A.M. to 1:00 P.M. Approximately 1,200 children will be served. Course offerings will include reading, arithmetic, science, music, art, and pre-vocational. Records were not available on students who had been assigned to the extended school-day program so statistical studies of it were not possible.

I. Urban Service Corps

The Urban Service Corps was funded for the fourth consecutive year by the Eugene and Agnes Meyer Foundation and continued its efforts to mobilize community resources in an attempt to meet some of the special needs of children in the Public Schools of the District of Columbia. These special needs, as indicated by principals, teachers, parents, and pupils themselves, are varied and complex, but are consistent with the needs of children who grow up in large urban communities all over our country. To meet these needs, the Corps has developed a variety of programs using volunteers from the total Washington community, both urban and suburban. They include interested citizens, clubs, and business groups, Cabinet wives, high school students, college students, parents, and professionally trained persons who donate their professional skills to the schools. In addition, the Corps has used some of its funds to employ personnel to develop experimental programs which, if proved useful, may become a permanent part of the public school system.

Previous Urban Service Corps reports contained descriptions of programs which were in operation at the time that the report was made. Some of these have been discontinued, some have been expanded, and new programs have been initiated. Some of these programs are noted below for special emphasis because they indicate the direction in which the Corps is moving and, in some cases, show the significance of the Corps' work to the school system. These programs are:

1. D.C. Educational Internship Program: This program grew out of efforts to secure in-school tutoring help for children in Inner City areas and a desire to provide opportunities for students enrolled in schools of education in area colleges to have pre-teaching experiences and practice-teaching experiences in schools located in the disadvantaged areas of the city. Last year 172 college students were recruited to provide help for 516 students. At the beginning of this school year, September 1965, a staff member was hired by the school system to continue use of teacher-aides and para-professionals. This program affords much needed opportunity for individual help and should be expanded.

2. Building Maintenance Class at Cardozo High School: This work-study program was designed to provide an opportunity for potential school dropouts to earn the money they need in order to stay in school and to provide work experience within the school system itself, thus allowing close assocation to the school program. The Corps paid the salary of the classroom teacher as well as the salaries of the boys who worked as custodians in the schools. Last year, the salaries of the boys were paid by the school system and this year the students are being paid out of Office of Economic Opportunity funds. At the present time, the Corps is contributing only the teacher for the program.

Such a program should allow much opportunity for development of the adolescent's self-concept. Simply to give the child an opportunity to remain in school, without continual reinforcement of the advantages of staying, does not appear to instill a positive attitude. Cloward and Ontell point out that "The failure of our youth employment training programs...and the subsequent instabilities of job histories often attributed to poor motivation is, in fact, the result of a diminished sense of occupational competence.... One of the fatal defects of the planned attack on youth unemployment is that improved education has not become the chief goal. A firm educational foundation is crucial if a young person is to have a good idea of himself and a sense of competence. The skills required to obtain and hold employment have shifted, and those without education cannot and do not find a place in the occupational world." (Cloward and Ontell, 1965)

3. Widening Horizons Program: For the past three years, the Widening Horizons Program, which provides Summer Tours for Teens in an effort to provide them with wholesome leisure-time activities, to acquaint them with the cultural resources of our city, and to acquaint them with

employment opportunities, has been expanded both in terms of the number of tours provided and in the number of children served. Some 400 volunteers have developed this program and work on a citywide and local neighborhood basis. Reception of the program by community and school personnel seems to be very favorable. Much could still be done to instill in children our national heritage which is so abundantly available in the D.C. area.

4. Saturday Schools for Mothers and Preschoolers: This program is designed to teach mothers what they can do at home to prepare their preschool children for enrollment in kindergarten. It was begun on a completely voluntary basis at the Garrison School during the Spring session of 1964. Last year the program was made a part of the Model School Division of the D.C. School System, which operated five Saturday Schools, while the Corps operated two schools. Personnel for these schools was secured from among public school teachers, who were remunerated for their services. This year the Model School Division is again operating five Saturday Schools and seven more are included in proposals for the rest of the system through Impact Aid funds. The D.C. Schools received a Pacemaker Award from the NEA and Parade magazine for this program. An effort like this one has the secondary effect of communicating the school's message to the community and should not be overlooked as a primary channel for improving understanding in a community where much criticism has been offered about teaching methodology.

Fink, McKay, and others have a continuing project of this type (Saturday Morning Project with Elementary School Children, Wayne State University, College of Education, Detroit, beginning in November 1964) with about 20 potentially delinquent children of elementary school age. The purpose is to modify the behavior of the children in the direction of school and community goals through creative activities.

5. Extended Day Program at Logan School: This is the Corps' attempt to develop a community school which is based on the local needs of the pupils served and on the problems faced by the adults who live in the immediate neighborhood. The overall aim of this program is the development of a school-community which supports the educational efforts of the school, turns to the school for advice and help, and becomes actively involved in the school's programs. There seems to be some overlap in objectives and eventual benefits between this program and the Saturday Schools for Mothers and Preschoolers which should be investigated, especially where both programs serve the same population.

The Urban Service Corps appears to be one of the most effective of the anti-delinquency programs especially for students who find employment in it.

J. Pupil Personnel Services

Guidance and counseling services in the D.C. Public Schools are included in the Pupil Personnel Services Department. As such, it is chaired by the Director of Guidance who has two assistant directors, one who specializes in placement and one who is a general assistant.

The allotment of counselors is based only on the size of the budget and not with a ratio as the basic criterion. At present, 232 counselors are assigned at the elementary, junior high, and senior high school levels. In 133 elementary schools there are 97 counselors, as of the second semester of the school year 1965-66. On the junior high level 79 counselors have been assigned to 25 schools, while the 11 high schools have 53 counselors 6 of whom are located at the 5 vocational high schools. The Sharpe Health School, Boys' Junior-Senior High School, and the STAY Program have one counselor each. There is no differential sum presently found in the salary schedules for personnel who are hired under the same tenure as teachers -- a 10-month contract. Certain criteria, such as teaching experience and academic preparation, are used to hire these individuals. All counselors must first hold a valid teaching certificate at the level for which they will be placed before they can be fully certified as counselors.

The testing program and psychological services are found in the Department of Pupil Personnel Services. Table 1 is a summation of the required and optional testing presently in effect from grades 1 through 12 for which this division is responsible. Individual psychological examinations and extensive case work are carried out by the Pupil Personnel Services Department.

Counseling at the junior and senior high school level can be both formal and informal relating to education, vocational, and personal problems. Records of counseling are not kept generally unless by an individual counselor who, because of his personal organization, devises a method or procedure for his own use. Counseling purposes are not presently structured in a way permitting an individual tabulating this information to place each contact in a specific category. The contact that might at first seem to be for "academic failure" might have hidden reasons (i.e., family situation or peer relationships).

Only a small percentage of the sample taken at both junior and senior high schools had any notation about the incidences of counseling, although there is a place for this on the records form. This situation should be improved and could lead to better handling of the students' problems. From the information available, the reasons for counseling have been tabulated. A rank order of this tabulation shows the following

TABLE 1

Summary of the Mandatory and Optional Testing Program of the District of Columbia Schools under the Direction of the Department of Pupil Personnel Services -- School Year 1965-66

Test	Mandatory or Optional	Grade or Track Used	Date of Testing
Metropolitan Readiness	Mandatory	K and 1	9/13 to 10/4
Stanford Achievement	Mandatory	6; 9 (Basic)	2/28 to 3/11
Otis Quick-Score	Mandatory	6	2/28 to 3/11
Metropolitan Arithmetic	Mandatory	6 (Basic)	2/28 to 3/11
Tests of Educational Ability (TEA)	Mandatory	6 and 9 (Basic)	2/28 to 3/11
Sequential Tests of Educational Progress (STEP), (Mathematics, Reading, Listening, Writing)	Mandatory	4; 9 (Honors and General); 11 (Tracks 1, 2, 3)	3/21 to 4/1
School and College Ability Tests (SCAT)	Mandatory	4; 9 (Honors and General); 11 (Tracks 1, 2, 3)	3/21 to 4/1
Metropolitan Spelling	Mandatory	2	4/25 to 5/6
Differential Aptitude Test (DAT)	Mandatory	8	1/3-14
Test of General Ability	Optional	7	9/20-24
Tests of Educational Ability (TEA)	Optional	9	3/7-18
Stanford Achievement (Adv.)	Mandatory	11 (Track 4)	4/18-29
Flanagan Aptitude Classification Test (FACT)	Optional	10 or 12	Open

as primary reasons for referral by self or others for counseling: (1) poor grades or failing, (2) future vocational plans, (3) initial interview, and (4) academic program or placement. Other less-mentioned reasons included personal problems, poor attendance, request for change of teacher, general information, and review of record.

Pupil personnel services play a vital role in the prevention of dropout and delinquency. They should be and are being expanded.

VII. PROCEDURE FOR OBTAINING SAMPLES STUDIED

A sample of 1052 boys who were 17 years old in 1964-65 was selected. Of these, 562 were taken representatively from 1963 school files (including dropouts) and 490 were taken from 1964-65 files of Juvenile Court referrals. The two categories of cases were suitably weighted to produce a combined sample that was equivalent for analysis purposes to a sample of the total population.

A similar sample of 582 17-year-old girls was selected. Of these, 497 were taken representatively from 1963 school files, and 85 were taken from the 1964-65 files of Juvenile Court Referrals.

It is difficult to make true comparisons between what schools are and do and what they accomplish because so many different things are involved. Simple comparisons are almost always misleading. For example, children in old schools may not learn well but the older schools might tend to be in lower income areas. Schools in low-income areas might also tend to be overcrowded, spend less per pupil, and have larger classes. The only meaningful comparison would be to compare student performance in old and new schools that are the same in regard to overcrowding, per-pupil expenditure, and class size.

This kind of comparison might be made with matched groups if a large enough sample of schools were available since some low-income neighborhood schools are in new buildings and not overcrowded, and spend as much as some schools in higher income areas. However, one must also consider a number of other things such as race, education of parents, quality of housing, school size, teacher experience, curriculum practices, size of library, salary of teachers, or any of many other important aspects of schools. When this many things are involved it is no longer possible to make matched group comparisons but, fortunately, a statistical substitute is available. It is called multivariate analysis. There are several types of such analyses. One of the more common is called multiple factor analysis (Harmon, 1960).

Multiple factor analysis makes it possible to examine a large number of interrelationships at the same time and to reduce the complexity of the pattern of relationships. This is somewhat analogous to reducing chemical substances to different combinations of atoms. In effect, multiple factor analysis makes it possible to compare what schools are and do with what they accomplish, with the effect of having a number of things held constant as though one had matched groups that were the same in a large number of ways but different in some other way such as the racial composition of the student body.

Another method of multivariate analysis is multiple correlation (DuBois, 1965) and multiple regression. This involves computing the correlation or relationship between such a performance measure as reading achievement or dropping out of school and a weighted combination of a number of predictive measures or variables. The analysis permits consideration of all measures simultaneously in relation to a given measure being predicted and, in effect, holds them constant for purposes of comparison. For example, studies have been made where measures of school performance have been simultaneously related to IQ, race, socio-economic status of the family, the quality of the child's neighborhood, several aspects of the child's motivation and interests, and many aspects of the school he is attending. In such studies it is common to find that some variables fairly highly related to the measure being predicted (when taken in isolation) "wash out" when the other measures are brought into the picture. This often happens with race, for example. When the full body of information about the child is considered in relation to achievement, however, race as such is found to have little or no correlation with achievement when all the other variables are held constant statistically. This indicates that white and Negro groups that are adequately matched on social and cultural factors do not differ in school achievement. Low-income white students from low-income areas and poor environments also do poorly in school.

A statistical model was prepared showing the relationships between (a) delinquent behavior, and (b) participation in various special school programs, with several important student, school, family, and neighborhood variables held constant. Socio-economic control variables included those found to be of greatest importance in a series of multivariate studies of Project Talent data and of D.C. School data. In the District of Columbia, median income level and other important indices for each census tract were already available from earlier studies together with important characteristics of each public school in the District and its staff and students.

These data were combined in the way found to be most predictive of Juvenile Court referral, and for each special anti-delinquency program the predicted performance of the students was compared with the obtained performance. The difference between the two may be regarded as a measure of the effectiveness of the program. A program may be regarded as effective if fewer than predicted are referred to Juvenile Court.

VIII. STATISTICAL STUDIES OF SCHOOLS AND STUDENTS

In 1960 the National Inventory of Aptitudes and Abilities (Project Talent) was administered to a nationally representative sample of approximately 450,000 students in grades 9 through 12 in 1353 secondary schools. These youth are being followed up periodically to study their educational, vocational, and marital records.

It was found that educational attainment seems to be closely related to eventual occupational status. One measure of educational attainment is the Project Talent Information Test (Dailey, 1961). The score on Part I of this test is a total of such "in-school" learning as literature, social studies, mathematics, physical sciences, biological sciences, and home economics, plus such "out-of-school" learning as technical vocabulary, mechanics, electricity, and aeronautics and space. A study of the mean scores on this test for a number of occupational and educational groups for students one year out of high school shows a very wide spread between the highest and lowest groups. College students scored much higher than did noncollege students. Youth in skilled jobs scored much higher than did those in less desirable jobs or youth who had dropped out before graduation. Several of the higher occupational groups average well within the range of most colleges. It appears that youth with a wide fund of information tend to enter college or end up in a job with a future. In either case they are very likely to end up with adequate incomes under most circumstances (Dailey, 1964).

These studies indicate that if our low-income youth are to have a full chance to emerge from poverty, the quality of their education must be massively upgraded. This means more than merely keeping them in school another year or two. It means having them learn more and developing their basic educational and communication skills to a higher level.

A. School Characteristics vs. School Outcomes

It is often said that a person has "received" only an eighth-grade, or a fourth-grade (or some other grade level) education, but an education is not "received" in a simple sense. A person learns in school within a cultural setting and social environment. Often out-of-school family or community factors will almost completely nullify attempts to upgrade the educational skills and attainment of youth in schools in low-income areas.

With Project Talent data several studies have been made of the relationships between many school practices and many school outcomes (Dailey, 1962) (Dailey, 1965). The Project Talent data to date seem to indicate that four school factors most closely and uniquely associated with school outcomes such as achievement, going to college, and staying in school, are: (1) teacher salaries, (2) teacher experience, (3) number of books in the school library, and (4) per-pupil expenditure.

The data in Project Talent indicate that some school characteristics seem much less likely to be prime causes of excellence of school output. Among these seem to be: (1) school size, (2) average size of classes, (3) age of building, and (4) suburban location.

A similar study was made of the elementary schools in the District of Columbia (see Appendix, Tables A-1, A-2a, and A-2b). It was found that the measure other than the racial composition of the student body which was most closely related to school performance in reading comprehension was the median family income for the census tract in which the school was located. The higher the median income the higher the achievement, and the lower the income the lower the achievement. This measure stood out above all others. The second most important factor which contributed to high performance when all other variables were held constant was low rate of non-promotion within schools. While the ethnic factor was by a very slight margin most highly correlated with reading, it added little to the multiple prediction obtainable from the other variables.

For the above study two ways of expressing school achievement test performance of elementary schools were available for investigating their relationship to school and community characteristics. One was by the percentage of the students in the fourth and sixth grades who scored below national norms on the standardized tests; the other was the median grade placement for these grades derived from the tests. When these two methods were compared it was found that they give the same results statistically.

In addition, similar analyses were made to predict achievement in Word Knowledge, Arithmetic, and Total Language performance on the Metropolitan Achievement Battery, all of which yielded similar patterns, with high median income the most closely related statistically, followed to a much lesser degree by low rate of non-promotion within the school.

One of the least useful variables in this study was median years of education of the adult population in the school census tract. This is to be expected since many studies, particularly Project Talent (Dailey, 1962), have shown that high schools differ tremendously in their levels of achievement. This makes grade completed a very inaccurate measure of the actual level of education.

It is of considerable interest that in this study ethnic data about the composition of the student body or the school staff were not needed to predict achievement with a high degree of accuracy. The use of the median family income level by itself predicts performance about as well as any combination of all the available socio-economic variables. Such factors as gross expenditure rate in each specific school and degree of overcrowding bore little relationship to school achievement in schools with the same levels of parental income. This was also true of the age of the school building. The most closely related school factors were the presence of a librarian and participation in a new Language Arts Program. The general pattern of the findings was very similar to those in the studies of the national samples of high schools in Project Talent.

The general findings also seem to be quite similar to the findings of the Civil Rights Survey of the Office of Education (1966):

> "...schools are remarkably similar in the effect they have on the achievement of their pupils when the socio-economic background of the students is taken into account." (p. 21)
>
> "It appears that variations in the facilities and curriculums of the schools account for relatively little variation in pupil achievement insofar as this is measured by standard tests." (p. 21)

A similar study was made to relate the characteristics of each District of Columbia elementary school to the Juvenile Court referral rate for fiscal year 1964-65 for the census tract in which the school was located (see Appendix, Table A-3). The relationship between the percentage of the fourth grade who were below the national average in reading and the delinquency rate is shown in Figure 1 (see next page). Each dot represents the percentage of below-average readers and the delinquency rate for a single elementary school.

The relationship is a markedly curved one. To straighten it out, both poor-reader rate and delinquency rate were transformed mathematically by the use of logarithms for purposes of analysis (Arkin, 1950). This is a common method employed in many scientific studies where curved relationships need to be transformed into straight-line relationships.

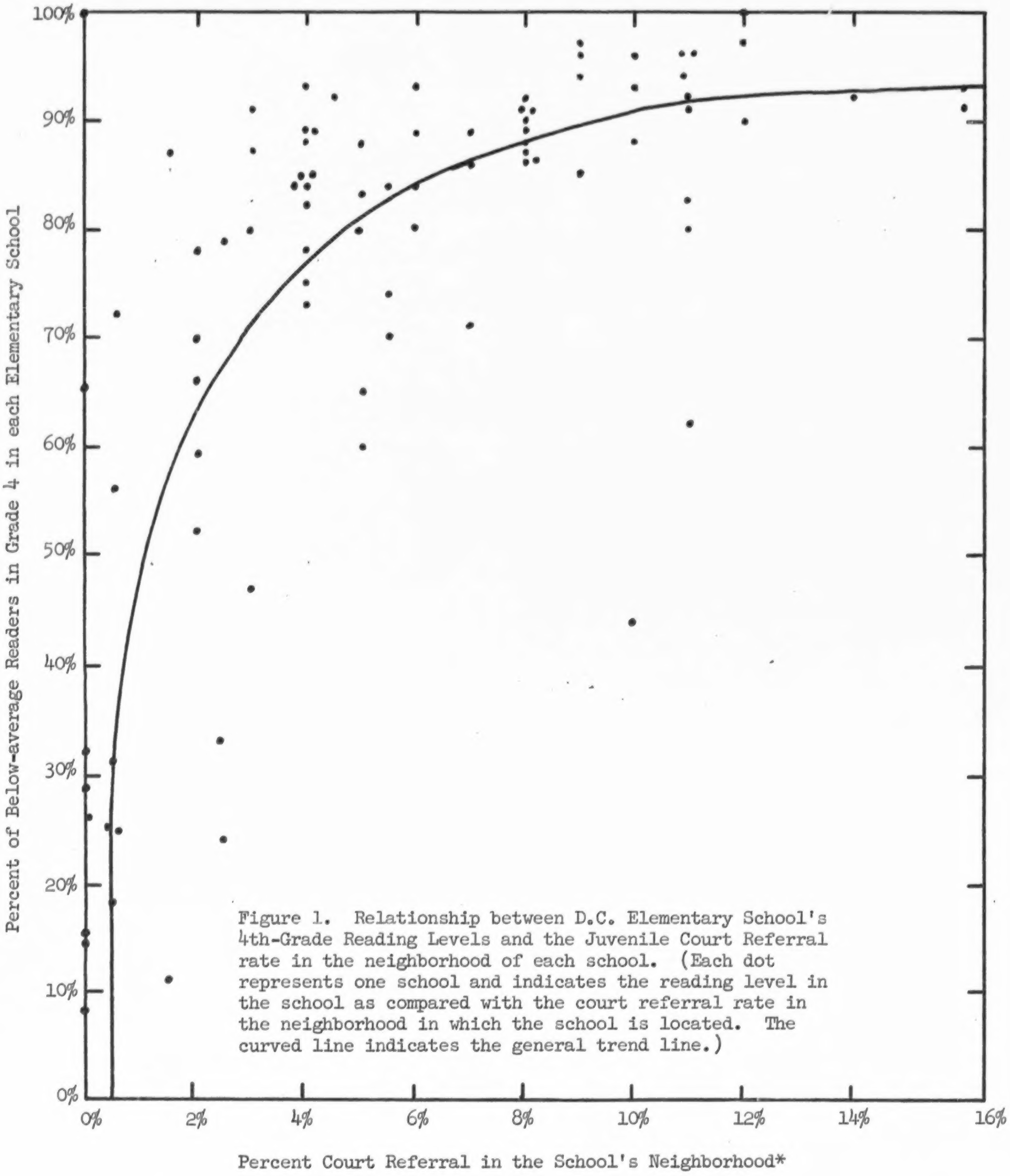

Figure 1. Relationship between D.C. Elementary School's 4th-Grade Reading Levels and the Juvenile Court Referral rate in the neighborhood of each school. (Each dot represents one school and indicates the reading level in the school as compared with the court referral rate in the neighborhood in which the school is located. The curved line indicates the general trend line.)

*The percentage of high school-age youths referred to Juvenile Court in 1964-65 from the census tract in which the school is located. Most census tracts have either one or two elementary schools located in them.

After the transformation a high multiple relationship was found between the school characteristics and the court referral rate (see Appendix, Table A-4). The most highly predictive factor was the median reading score of fourth graders (Metropolitan Achievement Test). It correlated -.775 with the court referral rate. The next most predictive factor, median school years completed of adults in the census tract in which the school is located, raised the multiple correlation to .814. Next in order of predictive power was percentage of families with incomes below $2000, and then extent of overcrowded housing. Adding these two raised the multiple correlation to .820 and .825, respectively. Addition of the other 17 variables raised the multiple R to only .835.

The most important thing about Figure 1 is the pronouncedly lower delinquency rate that is found associated with the schools with 80 - 89 percent readers below national norms as compared with schools with over 90 percent. This suggests that substantial reductions in juvenile delinquency might be facilitated by only slight improvements in reading level in many of our low-income area schools.

The results of these studies suggest that a massive improvement in the school performance of the present low-achievement students is not likely to result from any combination of increases in what schools have been doing in the past. We cannot solve our school problems merely by higher salaries, more teacher experience, more books, larger schools, smaller classes, new buildings, or moving slum schools to suburban locations. New and novel methods and approaches will be required, including large-scale team approaches, to reach the home environment and parents as well as the schools and children.

B. Studies of Juvenile Court Referral

A statistical study was made of the relationships between a number of important measures of individual and background characteristics and whether students had been referred to the District of Columbia Juvenile Court during fiscal year 1964-65. The study included all 17-year-old boys and girls referred to the court during this period plus a random 20-percent sample of those of the same age who had been in school in the District of Columbia. The dropouts were included.

Each D.C. junior and senior high school, special anti-delinquency program, and juvenile institution was visited by the research staff, and student personnel records were abstracted. All these cases were also looked up in the central school files. It proved difficult to obtain consistent information for all students because of wide variations in how and where the student records were kept. Some important data could not be found for many students. However, a fairly complete set of basic data was finally obtained for about 600 court cases and about 1100 non-court cases. Statistical studies were made for these groups.

Each of the measures shown in Table 2 was related to each other and to court referral. The various anti-delinquency programs of the D.C. Public Schools were also included and related to each of the measures.

Table 3 shows the proportion of the court referral cases in each of the special anti-delinquency programs studied and also the proportion of the non-court control group of students in each special program. The difference between these proportions for each program indicates the extent to which membership in it tends to be associated with being referred to the Juvenile Court during 1964-65.

The greatest difference is found for juvenile institutions. Here the proportion of the court cases who have been in juvenile institutions is 5½ times as great as the proportion of the non-court cases. It is approximately 11 percent for the court group and only 2 percent for the non-court group. This difference is highly significant from the statistical point of view (beyond the one-percent level). This indicates that those who have been in juvenile institutions are much more likely to be referred to the Juvenile Court later than are students in general. On the other hand, there was virtually no difference in this respect associated with being in the Model School Division.

The court cases were about three times more likely to be in Social Adjustment Classes than were the non-court group and this was a statistically significant difference at the one-percent level. Membership in Social Adjustment Classes is definitely associated with being referred to the Juvenile Court.

TABLE 2A - CHARACTERISTICS OF MALE JUVENILE COURT REFERRALS

Variable Number	Description of Variable	Court Group		Non-Court Group	
		No. of Students	Average	No. of Students	Average
1.	Court Referral, percentage	490	100%	562	0%
2.	Race, percent Negro	490	94%	562	89%
3.	Grade Placement (number of years behind grade for age)	485	1.73	560	1.78
4.	Still in School, percentage	490	50%	562	77%
5.	Highest Grade Completed	477	9.29	551	10.38
6.	IQ	313	84.88	424	89.42
7.	Born in D.C., percentage	490	67%	562	61%
8.	Occupation of Father (percentage whose fathers are semi-skilled and above)	490	13%	562	22%
9.	Derogatory Remarks by Teachers, (from school records such as excess absence; aggressive; stealing; lying; emotional, disciplinary and sex problems; misconduct etc.) percent with one or more derogatory remarks	490	56%	562	38%
10.	Personal qualities rated minus (from the ten personal qualities on school records)	490	.35	562	.35
11.	Ten or more unexcused absences, percentage	490	34%	562	18%
12.	Median Years of Education of the Adult Population in the Census Tract	466	10.00	544	10.36
13.	Reading Level of Fourth-Grade Students in Elementary Schools in Census Tract	429	3.40	511	3.56
14.	In Model School Division, percentage	490	14%	562	13%
15.	In Boys Junior-Senior High School, percentage	490	3%	562	2%
16.	In Social Adjustment Classes, percentage	490	9%	562	3%
17.	In Twilight School, percentage	490	2%	562	0%
18.	In STAY Program, percentage	490	2%	562	1%
19.	In Juvenile Institutions, percentage	490	11%	562	2%
20.	In Urban Service Corps, percentage	490	1%	562	1%

TABLE 2B - CHARACTERISTICS OF FEMALE JUVENILE COURT REFERRALS

Variable Number	Description of Variable	Court Group		Non-Court Group	
		No. of Students	Average	No. of Students	Average
1.	Court Referral, percentage	85	100%	497	0%
2.	Race, percent Negro	85	89%	497	88%
3.	Grade Placement (number of years behind grade for age)	85	1.08	495	1.48
4.	Still in School, percentage	85	51%	497	78%
5.	Highest Grade Completed	83	9.92	487	10.58
6.	IQ	50	89.80	375	91.09
7.	Born in D.C., percentage	85	68%	497	67%
8.	Occupation of Father (percentage whose fathers are semi-skilled and above)	85	16%	497	21%
9.	Derogatory Remarks by Teachers, (from school records such as excess absence; aggressive; stealing; lying; emotional, disciplinary and sex problems; misconduct; etc.) percent with one or more derogatory remarks	85	45%	497	38%
10.	Personal qualities rated minus (from the ten personal qualities on school records)	85	.31	497	.29
11.	Ten or more unexcused absences, percentage	85	33%	497	11%
12.	Median Years of Education of the Adult Population in the Census Tract	79	10.09	486	10.28
13.	Reading Level of Fourth-Grade Students in Elementary Schools in Census Tract	73	3.42%	464	3.59%
14.	In Model School Division, percentage	85	8%	497	13%
15.	In Girls Junior-Senior High School, percentage	85	0%	497	2%
16.	In Social Adjustment Classes, percentage	85	6%	497	1%
17.	In Twilight School, percentage	85	0%	497	0%
18.	In STAY Program, percentage	85	9%	497	2%
19.	In Juvenile Institutions, percentage	85	5%	497	2%
20.	In Urban Service Corps, percentage	85	0%	497	1%

TABLE 3

Percentage of Boys in Court Group and Non-Court Group For Each Anti-Delinquency Program

	Court Group (N=490)	Non-Court Group (N=562)
Juvenile Institutions	11.2%	2.1% **
Model School Division	13.7%	13.2% *
Urban Service Corps	0.8%	0.7% ***
Social Adjustment Classes	8.8%	3.2% **
Boys' Junior-Senior High School	2.8%	2.3% *
STAY Program	2.4%	1.4% *
Twilight School	2.2%	0.2% ***

* Difference not significant at the 5% level

** Difference significant at the 1% level

*** Insufficient data to give meaningful comparison

There was a higher percentage of court cases than non-court cases for the Boys' Junior-Senior High School and the STAY Program groups but the difference was not statistically significant. Membership in these two groups is not associated with being referred to the Juvenile Court.

The proportions of both groups who were in the Urban Service Corps and the Twilight School program were too small to justify conclusive statistical comparison (McNemar, 1962). However, one may conclude that there is no significant evidence of these programs being associated with court referral.

Since all the special programs tend to have students who have given evidence of poor motivation or potential for delinquency, one would expect to find membership in any such program to be significantly associated with court referral unless the program effectively counteracted the students' potential for developing delinquent behavior. Lack of such an association may be regarded as evidence of effectiveness of the program in minimizing the extent of court referral. The program could therefore be regarded as an effective "antidote" in preventing delinquency.

From this point of view it would appear that the Model School Division is a clearly effective "antidote." The Boys' Junior-Senior High School and the STAY Program also appear to have some effectiveness as "antidotes." The evidence is inconclusive for the Urban Service Corps and Twilight School because of sparse data. Juvenile institutions and Social Adjustment Classes do not appear to be effective as "antidotes."

Because of the much smaller proportion of girls referred to Juvenile Court, it was not possible to make meaningful comparisons between programs for girls.

A multiple correlation analysis was carried out. In this analysis the relationship is obtained between each measure, in turn, with court referral, with all the other measures held constant. Membership in an anti-delinquency program was used as a statistical measure, with being in the program counted as one and not being in the program counted as zero. In this manner, program participation can be correlated with various measures.

For the boys (see Appendix, Tables A-5 and A-6) the single measure most highly related to Juvenile Court Referral was Highest Grade Completed. The next most important variable was the Age-Grade Placement Index. This raises the correlation from .262 to .393 when given a positive weight. This means that for a given grade level completed, dropouts who were over age for that grade show a lower probability of being referred to the court. This indicates that those who stay in school longest are least likely to get in trouble.

This, of course, does not mean that forcing them to stay in school longer would necessarily keep them out of trouble. However, it probably means that motivating them to stay in school longer voluntarily would tend to keep them from becoming delinquent.

The third largest contribution to predicting the criterion was Derogatory Comments by Teachers which raises the correlation to .411. Adding the remaining 15 variables raises the correlation only to .453.

Of very considerable interest are some of the things that make extremely little contribution to predicting referral to the Juvenile Court. Among these is race. With the other variables held constant, race is not signicantly related to delinquency. Neither is the factor of being born in the District of Columbia.

For the girls (see Appendix, Tables A-7 and A-8) the correlations are much lower. Far fewer girls than boys were referred to the Juvenile Court and being referred is much less predictable. However, the measures most predictive of referral are almost exactly the same as for the boys: Age-Grade Placement, Highest Grade Completed, Absenteeism, and Derogatory Comments by Teachers.

C. Factor Analyses

When dealing with a complex set of measures and characteristics, such as these student variables in relation to court referral, it is most difficult to make interpretations based on cross-tabulations which compare matched groups even for very large samples because there are so many variables involved. The number of combinations to compare becomes impossibly large. The pattern of interrelationships can be greatly simplified by means of multiple factor analysis (see Appendix, Tables A-9 and A-10). This permitted boiling down 20 measures into 8 simpler factors and showed how each of these 8 basic factors was related to each of the 20 original measures. The 8 factors isolated were: (1) Educational level, (2) Socio-economic level of the neighborhood, (3) Personal qualities, (4) Attending Social Adjustment Classes and Boys' Junior-Senior High School, (5) Having been referred to the Juvenile Court, (6) Having been in the Urban Service Corps, (7) Having been in the STAY Program, and (8) Occupation of the father.

The first factor is a measure of the educational level of the student. This factor is most highly related to the Age-Grade Placement and also has substantial relationships with Highest Grade Completed, with IQ of the student, with whether he was born in D.C., and with whether the student is still in school. The factor also indicates a substantial relationship between the educational level of the student and the probability of his being referred to the Juvenile Court. Variable one, Court Referral, has its second highest relationship with factor one, Educational Level.

The second factor is defined by the socio-economic status of the neighborhood in which the student resides. The two highest relationships to this factor are the median reading grade level of fourth-grade students in the elementary schools in the census tract, and the median years of education of the adults living in the census tract in which the student resides. This is negatively related to race, as would be expected. Court referral has little relationship to factor 2.

Factor 3 is defined by the variable personal qualities. Personal qualities ratings by teachers are surprisingly highly related to being born in D.C. Apparently the teachers rate the personal qualities lower for those students born in the District of Columbia. There is little or no relationship between this factor and court referral.

Factor 4 has the highest relationship for Social Adjustment Classes and for Boys' Junior-Senior High School. There is some positive relationship with court referral, although the relationship is low.

Factor 5 represents the measure of delinquency. Having been in the Model School Division, the Urban Service Corps, in Boys' Junior-Senior High School, or in Social Adjustment Classes, has low positive relationships with court referral, whereas the Twilight School, STAY Program, or having been in juvenile institutions, has slight negative relationships that may be regarded as essentially zero.

Factors 6 and 7 are best defined by having been in the Urban Service Corps, or the STAY Program, respectively. Neither factor is significantly correlated with court referral.

Factor 8, occupation of father, was the last factor found.

The factor analysis demonstrated that court referral was most highly related positively to (1) Having Been in Juvenile Institutions, and (2) Derogatory Comments by Teachers. It had high inverse relationships with (1) Being in School, and (2) Highest Grade Completed. This indicates that programs that keep students in school and get them to higher grade levels should be effective in reducing delinquency.

A similar factor analysis was done for the sample of girls. Nine factors were found. The factors for girls are highly similar to the ones found for the boys. Court referral was found to be most highly related to Being in School, Absenteeism, and Highest Grade Completed.

It may be concluded that the various special anti-delinquency programs seemed to be effective and should be supported and strengthened. The Social Adjustment Classes were of doubtful effectiveness and the juvenile institutions did not appear to be effective in prevention of delinquency. However, the most important contributions to preventing delinquency are programs that will motivate students to stay in school longer and to advance to higher grade levels. These will include the regular instructional programs and pupil personnel services of the schools.

Effective school programs seem to be indivisible in the extent to which they achieve their scholastic objectives and also prevent delinquency.

The most effective anti-delinquency program will be a school system that provides meaningful quality school programs to all of its students.

IX. CONCLUSIONS

The American school system is probably the next most important socializing agent, after the family, since it transmits the mores, habits, and aspirations of society as a whole. Whenever the families work in harmony with the schools and the majority components of our society, the schools readily achieve their goals; but whenever they do not, the schools have great difficulty in meeting their goals.

Many large city school systems are in trouble today and have difficulty in carrying out effective school programs. This is reflected by inadequate skill development in their students and by high rates of juvenile crime. It appears clear, however, that no single person, group, or policy in individual school systems can be blamed for this, since studies such as Project Talent show the same situation in all large metropolitan school systems. They experience great difficulty with the motivation and development of children from families that do not share in the mores, habits, and aspirations of the predominant groups in American society. They also find it increasingly difficult to finance adequate school programs because city limits tend to be relatively fixed and more and more of the wealth and leadership of metropolitan areas are located outside of the central city.

The problem in the schools is not a matter of race or ethnic groups. Whenever the schools are serving children from intact families whose heads are regularly working at semi-skilled, skilled, or white-collar jobs, they achieve their goals easily, regardless of the race, creed, or color of their parents.

Many studies have been made of the relationships between family characteristics and school performance, and it has been uniformly indicated that family characteristics are the primary factors determining the success of a given school. The success of a school is largely proportional to the types of families it serves, almost regardless of such factors as school size, age of the school building, amount spent per pupil, overcrowding, or class size.

The troubles and problems of the Washington, D.C., schools are the same as those of other large metropolitan school systems and spring from the same causes. The school performance and delinquent behavior of its children are a direct reflection of the extent to which families are operating to assimilate their children into modern organized society. In those areas where families are performing this function, including some predominantly Negro neighborhoods, performance in school is good, and juvenile crime is minimal. After differences in the types of families involved have been equated, Washington school performance and juvenile crime rates compare favorably with those in similar large cities.

The juvenile crime rate of each local neighborhood (census tract) in the District of Columbia has been found to be significantly related to the proportion of poor readers in the elementary school or schools serving that particular neighborhood. The relationship is represented by a curve in which, as one goes from low to high percentage of poor readers, each increase in poor readers is accompanied by an increasing crime rate. Once the ninety-percent-poor-reader mark is reached, the crime rate increases at a sharply accelerating rate. There is a great difference in crime rates between neighborhoods with 80 percent poor readers and those with 90 percent or more. It would appear that an effective school program simply cannot be carried out if more than 90 percent of the students are poor readers, but that it can be when the percentage is as high as 85. There appears to be in the latter case at least a small cadre of responsive students to provide leadership for the others and to provide enough teacher satisfaction to hold good teachers.

This suggests that a school with over 90 percent below-average readers might be able to achieve its objectives much better if only a small decrease in the percentage of below-average readers could be attained. It would be interesting to experiment with the setting up of school districts to keep the percentage of below-average readers below the 90-percent level. Special remedial and stimulation projects might also accomplish this end and are, of course, presently being conducted.

The relationship between the crime rate in a neighborhood and the reading level in its elementary school is probably quite complex. It remains to be demonstrated whether making a student a better reader would necessarily lessen his chances of being referred to the Juvenile Court. However, it is an established epidemiological fact that poor-reader neighborhoods in the District of Columbia tend to have high crime rates, and this should be looked into more intensively.

The real causative relationship is probably that families that fail to stimulate the intellectual development of their children also fail to motivate them to react favorably toward organized society. It would appear that an elementary school can serve a neighborhood with a high proportion of such families and still function, but the whole operation deteriorates when nearly all of the families served are of this nature.

This sort of "de facto segregation" of the very lowest income and cultural level families into elementary school areas may lead to great difficulties in reaching school objectives. It is strongly recommended that experiments be carried out to alter the boundaries of several elementary school districts that serve very low-income families exclusively and "blend in" enough adjacent higher income area to reduce the poor-reader percentage from 90-plus to 80-85 percent. It may also be possible to make such studies where such area changes have been caused by new school construction and consolidation of areas.

It seems clear, then, that the schools play their most important part in delinquency prevention with the regular academic programs in the elementary schools. The best way to reduce delinquency is to reduce the number of students who fail to learn to read adequately in elementary school. The most promising approaches to this seem to be to start the socializing process in the schools at the earliest possible age, to stress language development, and to obtain maximal parental involvement in the education process.

A number of the special school programs aimed explicitly at dropouts and juvenile delinquents appear to be effective in varying degrees, and should be vigorously supported and extended. However, the primary solution to the problem of crime prevention must be through solution of the problem of how best to provide quality education to all of our children from all of our families.

X. RECOMMENDATIONS

The following recommendations have grown out of the study:

1. That the programs initiated by the Model School Division be provided the resources and support that will allow experimentation and innovation in the most profitable manner.

The students from the Model School Divison were no more likely to appear in court than were those not in it despite the fact that they were of lower socio-economic status and come from areas with high crime rates. This indicates that the various Model School Division programs have operated to reduce referral rate to the Juvenile Court.

A study of the characteristics and backgrounds of 17-year-old youths referred to the Juvenile Court in 1964-65 revealed that court referral is most closely related to school behavior and school performance record and also how long students remain in school. With such measures held constant, race, as such, was not a significant factor. Neither was being born or not born in the District of Columbia. Juvenile delinquency could be reduced if the schools could challenge and motivate more of our youth to remain in school longer voluntarily and to cope with their school programs successfully. This can be accomplished by a stepped-up program of remedial work, special stimulation programs, counseling and other pupil personnel services.

2. That the Boys' and Girls' Junior-Senior High Schools, Twilight School, STAY Program, and the Urban Service Corps programs be expanded.

The evidence indicated that these programs seemed to be effective in reducing the incidence of court referrals. It is felt that with additional professional staff, such as social workers, remedial teachers, guidance counselors, and psychiatrists, the programs could become far more effective.

3. That special educational programs be provided for the youngsters returning to the schools from juvenile institutions.

These young people have a difficult time in adjusting to the school program on reentry. They are prone to "drop out" of school, reject the academic activities in the classroom, exhibit disruptive and delinquent behavior, and eventually reappear before the court. In order to break this cycle, education must become meaningful and stimulating. Staff members must be available to provide assistance and support in the classroom as well as after hours on the playground and in the home.

4. That the Social Adjustment Classes be redesigned so as to increase their effectiveness in reducing court referrals.

The study indicated that the Social Adjustment Classes are not effective in reducing court referral. It seems that various principals do not support the classes and there is a lack of direction and understanding of the program throughout the school system. It is proposed that the central school administration provide more direction, support, and leadership for this program. Regardless of its lack of effectiveness in reducing court referral, it does provide a way of removing a disruptive child from the class situation so other children may learn. The program should not be discontinued, but should be provided the guidance and support that will allow it to function as a remedial and preventive experience.

5. That the school program should begin by age 4, and priority should be given to extending the school age downward from the present age as rapidly as conditions permit.

The concept that organized preschool experience is necessary for the youngster from disadvantaged areas has gained much public support in the past few years. Project Head Start is responsible for much of this understanding and recently the Educational Policies Commission recommended that all children be exposed to such programs (1966). It is strongly recommended that the Head Start programs currently under way in the District of Columbia schools become a regular school program and be extended so that all children in the system may benefit from such experiences.

6. That for an effective preventive program the appropriate number of guidance counselors be assigned to each elementary school in the District of Columbia.

7. That the pupil personnel records system be revised to take advantage of modern data-handling technology.

Basic to any program of prevention, treatment, or rehabilitation, is adequate and detailed information concerning the child, his family, and his strengths and weaknesses. The pupil personnel records throughout the school system do not reflect this necessary information concerning the child and his environment. It is further proposed that procedures be developed that will provide the necessary information to the appropriate teacher, counselor, or clinician so that it may be utilized in their activities with the youngster concerned.

8. That the school must develop programs that will more closely involve the family of the child in the educational process.

There must be a greater awareness of the vital role of the family in the educational process and a concerted effort to foster closer family and school relationships. Programs must be developed for both school and community organizations to help parents learn how to stimulate and motivate their children to prepare them for educational opportunities and responsible living.

9. New approaches should be explored for providing work-study programs and continuing education for youth from age sixteen to the early twenties.

It may be a mistake to force the 16-year-old youth with confirmed negative school motivation to remain in a regular school program. Much emphasis should be given to exploring new ways of introducing such students to the world of work and to organized society. We should cease to think of school as a matter of age 6 to age 18. School should begin much earlier than age 6, and education should continue much later than age 18, but not necessarily within the school building. We should have work-study programs where some of the students now leaving school at age 16 could be placed in jobs where a planned sequence of work and part-time study could lead to the equivalent of completion of high school during an 8- or 10-year period. We now hold students as long as possible in a regular high school program and then lose them forever once they drop out or leave.

Studies of dropouts show that many of them regret leaving school after a couple of years of frustrating experience in jobs leading to nowhere. We could capitalize on this if we had an adequate system of work-study and continuing education for the school to offer selected dropout-prone youth. This program could "give them their heads" for the first two years and plan for them to devote an increasing amount of time to part-time schooling after they have worked two years. The important thing will be to give them a planned program leading to completion of a high school education while they are self-supporting. Many of these would flow into various post-high school programs eventually, including college work in a community college in some cases.

Such a new program of continuing education coupled with new early education programs and programs for maximum parental involvement could lead to a really marked decrease in crime in the District of Columbia and in all of our large urban centers.

XI. APPENDIX

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A-9 Rotated Factor Loadings for Eight Factors Extracted by Factor Analysis from Selected Individual, School, and Neighborhood Characteristics (Incomplete data; 17-year-old boys, N = 1052 maximum -- 688 minimum)

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TABLE A-1

Intercorrelations Among Selected School and Community Characteristics
and 1964-1965 Reading Achievement Scores
for District of Columbia Elementary Schools (N = 118)

			Variable Number																					
Var. No.	Description of variable	Source*	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Mean	S.D.
1	Participation in Language Arts Program	1		008	288	103	-255	-125	-249	038	219	-063	131	129	-032	103	013	108	323	128	-169	-195	8.77 %	28.41 %
2	Age of main school building	1	008		259	058	-159	-095	-191	204	032	307	-040	035	-022	024	164	276	110	-001	-101	-035	44.06	25.21
3	Ratio of Juvenile Court admissions to number of public school children in census tract	2	288	259		264	-647	-509	-764	623	544	-194	481	508	036	343	388	473	529	246	-616	-548	5.22 %	3.76 %
4.	Capacity	1	103	058	264		-400	-214	-429	134	224	-583	408	316	481	456	-154	194	084	404	-415	-296	1104.83	245.36
5	Median family income of census tract population	3	-255	-159	-647	-400		682	809	-505	-789	339	-734	-770	-005	-552	-325	-383	-586	-461	835	803	$6141.22	$2440.84
6	Rank order of census tract by proportion of adult population earning more than $2000 per year	3	-125	-095	-509	-214	682		631	-335	-764	134	-494	-576	132	-241	-218	-257	-451	-237	547	555	68.10	37.47
7	Median years' education of adult population	3	-249	-191	-764	-429	809	631		-697	-759	335	-620	-632	020	-425	-261	-450	-552	-389	721	645	10.83	1.90
8	Proportion of substandard housing of census tract	3	038	204	623	134	-505	-335	-697		462	-066	302	324	-036	239	213	316	371	145	-425	-421	13.88 %	13.95 %
9	Proportion of overcrowded housing of census tract	3	219	032	544	224	-789	-764	-759	462		-230	610	691	-142	331	192	293	586	384	-644	-622	15.85 %	10.16 %
10	Average daily per-pupil expenditure	1	-063	307	-194	-583	339	134	335	-066	-230		-368	-332	-214	-307	068	-068	-075	-401	329	264	$303.01	$56.89
11	Proportion of Negro pupils	1	131	-040	481	408	-734	-494	-620	302	610	-368		933	057	492	257	379	437	398	-850	-768	84.20 %	29.97 %
12	Proportion Negro staff	1	129	035	508	316	-770	-576	-632	324	691	-332	933		-010	467	240	392	521	367	-828	-746	77.03 %	33.77 %
13	Proportion of pupils in overcrowded classes	1	-032	-022	036	481	-005	132	020	-036	-142	-214	057	-010		181	-043	058	-050	147	-057	-046	53.59 %	24.08 %
14	Proportion of pupils in Junior Primary classes	1	103	024	343	456	-552	-241	-425	239	331	-307	492	467	181		030	298	348	557	-562	-466	4.54 %	2.72 %
15	Proportion of pupils in Special Academic classes	1	013	164	388	-154	-325	-218	-261	213	192	068	257	240	-043	030		310	311	070	-342	-344	2.91 %	3.41 %
16	Proportion of pupils not promoted	1	108	276	473	194	-383	-257	-450	316	293	-068	379	392	058	298	310		301	159	-426	-343	7.67 %	4.62 %
17	Proportion of pupils receiving free lunches	1	323	110	529	084	-586	-451	-552	371	586	-075	437	521	-050	348	311	301		315	-556	-528	9.60 %	9.24 %
18	Proportion of temporary teachers	1	128	-001	246	404	-461	-237	-389	145	384	-401	398	367	147	557	070	159	315		-515	-418	41.80 %	19.57 %
19	Median grade level, Reading Achievement, Metropolitan Reading Test, Grade 4, Spring 1965	1	-169	-101	-616	-415	835	547	721	-425	-644	329	-850	-828	-057	-562	-342	-426	-556	-515		871	3.77	0.86
20	Median grade level, Paragraph Meaning, Stanford Achievement Test, Grade 6, Spring 1965	1	-195	-035	-548	-296	803	555	645	-421	-622	264	-768	-746	-046	-466	-344	-343	-528	-418	871		5.68	0.98

Decimal points omitted

*Sources: (1) Superintendent's Office, District of Columbia Public Schools, (2) derived from Court referrals for fiscal year 1964-1965 and 1960 census information, (3) 1960 census

TABLE A-2a

Multiple R's for Selected School and Community Characteristics
versus
Reading Achievement, Metropolitan Reading Test, Grade 4, Spring 1965
(N = 118)

Variable Number	Description	Multiple R
12	Proportion Negro pupils	.843
6	Median family income of the census tract population*	.892
21	Number of half-time librarians (school year 1965-1966)	.897
22	Proportion of temporary teachers	.901
10	Proportion of overcrowded housing of the census tract*	.904
8	Median years' education of the adult population*	.908
11	Average daily per-pupil expenditure	.911
1	Participated in Language Arts Program	.913
18	Proportion of pupils receiving free lunches	.915
17	Proportion of pupils non-promoted (school year 1964-1965)	.916
16	Proportion of pupils in Special Academic classes	.917
20	Number of half-time librarians (school year 1964-1965)	.917
4	Capacity	.917
2	Age of main school building	.918
13	Proportion of Negro staff	.918
15	Proportion of pupils in Junior Primary classes	.918
5	Enrollment/capacity ratio	.918
14	Proportion of pupils in overcrowded classes	.918
19	Proportion of pupils in ADC programs	.918
7	Rank order of census tracts by the proportion of income of their adult population earning more than $2,000*	.919
9	Proportion of substandard housing of census tract*	.919
3	Enrollment as of 1965	.919

*From 1960 census data; all others from the Superintendent's Office District of Columbia Public Schools

TABLE A-2b

Multiple R's for Selected School and Community Characteristics versus Paragraph Meaning, Stanford Achievement Test, Grade 6, Spring 1965 (N = 118)

Variable Number	Description	Multiple R
6	Median family income of the census tract population*	.803
12	Proportion Negro pupils	.814
5	Enrollment/capacity ratio	.819
4	Capacity	.819
3	Enrollment as of 1965	.836
10	Proportion of overcrowded housing of the census tract*	.838
1	Participated in Language Arts Program	.840
18	Proportion of pupils receiving free lunches	.842
20	Number of half-time librarians (school year 1964-1965)	.845
11	Average daily per-pupil expenditure	.846
22	Proportion of temporary teachers	.847
15	Proportion of pupils in Junior Primary classes	.847
8	Median years' education of the adult population*	.848
2	Age of main school building	.848
19	Proportion of pupils in ADC programs	.848
21	Number of half-time librarians (school year 1965-1966)	.848
16	Proportion of pupils in Special Academic classes	.848
17	Proportion of pupils non-promoted (school year 1964-1965)	.848
13	Proportion of Negro staff	.848
7	Rank order of census tracts by the proportion of income of their adult population earning more than $2,000*	.848
14	Proportion of pupils in overcrowded classes	.848
9	Proportion of substandard housing of census tract*	.848

*From 1960 census data; all others from the Superintendent's Office, District of Columbia Public Schools

TABLE A-3

Intercorrelations Among Selected School and Community Characteristics and Court Referral Rate (Logarithmic Transformation) for District of Columbia Elementary Schools (N = 114)

			Variable Number																				
Var. No.	Description of variable	Source*	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Mean	S.D.
1	Participation in Language Arts Program	1		008	182	103	-255	-125	-249	038	219	-063	131	129	-032	103	013	108	323	128	-180	-208	8.8 %	28.4 %
2	Age of Main School Building	1	008		085	058	-159	-095	-191	204	032	307	-040	035	-022	024	164	276	110	-001	-127	-037	44.1	25.2
3	Ratio of Juvenile Court admissions to number of public school children in census tract	2	182	085		360	-732	-593	-746	463	601	-290	678	674	039	440	334	419	477	348	-775	-684	1.27	1.21
4	Capacity	1	103	058	360		-400	-214	-429	134	224	-583	408	316	481	456	-154	194	084	404	-398	-282	1104.8	245.4
5	Median family income of census tract population	3	-255	-159	-732	-400		682	809	-505	-789	339	-734	-770	-005	-552	-325	-383	-586	-461	841	800	$6141.22	$2440.84
6	Rank order of census tract by proportion of adult population earning more than $2000 per year	3	-125	-095	-593	-214	682		631	-335	-764	134	-494	-576	132	-241	-218	-257	-451	-237	570	568	68.1	37.5
7	Median years' education of adult population	3	-249	-191	-746	-429	809	631		-697	-759	335	-620	-632	020	-425	-261	-450	-552	-389	750	654	10.83	1.90
8	Proportion of substandard housing of census tract	3	038	204	463	134	-505	-335	-697		462	-066	302	324	-036	239	213	316	371	145	-455	-436	13.9 %	14.0 %
9	Proportion of overcrowded housing of census tract	3	219	032	601	224	-789	-764	-759	462		-230	610	691	-142	331	192	293	586	384	-668	-628	15.9 %	10.2 %
10	Average daily per-pupil expenditure	1	-063	307	-290	-583	339	134	335	-066	-230		-368	-332	-214	-307	068	-068	-075	-401	312	250	$303.01	$56.89
11	Proportion Negro pupils	1	131	-040	678	408	-734	-494	-620	302	610	-368		933	057	492	257	379	437	398	-832	-742	84.2 %	30.0 %
12	Proportion Negro staff	1	129	035	674	316	-770	-576	-632	324	691	-332	933		-010	467	240	392	521	367	-824	-725	77.0 %	33.8 %
13	Proportion of pupils in overcrowded classes	1	-032	-022	039	481	-005	132	020	-036	-142	-214	057	-010		181	-043	058	-050	147	-042	-036	53.6 %	24.1 %
14	Proportion of pupils in Junior Primary classes	1	103	024	440	456	-552	-241	-425	239	331	-307	492	467	181		030	298	348	557	-557	-445	4.54 %	2.72 %
15	Proportion of pupils in Special Academic classes	1	013	164	334	-154	-325	-218	-261	213	192	068	257	240	-043	030		310	311	070	-367	-355	2.91 %	3.41 %
16	Proportion of pupils not promoted	1	108	276	419	194	-383	-257	-450	316	293	-068	379	392	058	298	310		301	159	-441	-338	7.67 %	4.62 %
17	Proportion of pupils receiving free lunches	1	323	110	477	084	-586	-451	-552	371	586	-075	437	521	-050	348	311	301		315	-596	-546	9.60 %	9.24 %
18	Proportion of temporary teachers	1	128	-001	348	404	-461	-237	-389	145	384	-401	398	367	147	557	070	159	315		-514	-408	41.80 %	19.57 %
19	Median grade level, Reading Achievement, Metropolitan Reading Test, Grade 4, Spring 1965**	1	-180	-127	-775	-398	841	570	750	-455	-668	312	-832	-824	-042	-557	-367	-441	-596	-514		851	3.61	0.20
20	Median grade level, Paragraph Meaning, Stanford Achievement Test, Grade 6, Spring 1965**	1	-208	-037	-684	-282	800	568	654	-436	-628	250	-742	-725	-036	-445	-355	-338	-546	-408	851		6.33	0.16

Decimal points omitted

*Sources: (1) Superintendent's Office, District of Columbia Public Schools, (2) derived from Court referrals for fiscal year 1964-1965 and 1960 census information, (3) 1960 census

**~~Common~~ logarithmic transformation also used for these variables.
Natural

TABLE A-4

Multiple R's for Selected School and Community Characteristics versus Court Referral in District of Columbia Elementary Schools

(N = 114)

Variable Number	Description	Multiple R
19	Median grade level for grade 4 on the Metropolitan Achievement Test	.775
7	Median years' education of the adult population*	.814
6	Rank order of census tracts by the proportion of income of their adult population earning more than $2,000*	.820
9	Proportion of overcrowded housing of the census tract*	.825
2	Age of main school building	.827
15	Proportion of pupils in Special Academic classes	.829
12	Proportion of Negro staff	.831
18	Proportion of temporary teachers	.832
14	Proportion of pupils in Junior Primary classes	.833
13	Proportion of pupils in overcrowded classes	.833
16	Proportion of pupils non-promoted (school year 1964-1965)	.834
17	Proportion of pupils receiving free lunches	.834
1	Participated in Language Arts Program	.834
11	Proportion Negro pupils	.834
8	Proportion of substandard housing of census tract*	.835
4	Capacity	.835
5	Median family income of the census tract population*	.835
10	Average daily per-pupil expenditure	.835
20	Median grade level for grade 6 on the Stanford Achievement Test	.835

*From 1960 census data; all others from the Superintendent's Office, District of Columbia Public Schools

TABLE A-5

Intercorrelations Among Selected Individual Characteristics and Participation in District of Columbia Anti-Delinquency Programs -- 17-year-old boys, Wtd N = 2209

Var. No.	Description of Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Mean	S.D.
1	Whether court referral		085	029	-255	-262	-110	031	-068	164	041	-149	-091	-087	022	124	109	061	024	077	011	12.6 %	33.2 %
2	Whether Negro	085		-060	-051	-098	-302	070	-202	-029	090	-058	-293	-455	129	029	040	023	043	012	017	88.6 %	31.8 %
3	Grade placement, number of years behind grade for age	029	-060		351	692	406	046	072	-190	-120	213	174	108	-113	007	-148	030	-036	-163	014	1.81	1.14
4	Whether still in school	-255	-051	351		583	207	025	136	-221	-193	256	192	148	-118	011	-102	-008	-151	-243	-068	72.6 %	44.6 %
5	Highest grade completed	-262	-098	692	583		398	073	122	-224	-080	252	235	191	-173	-035	-198	-010	-005	-212	-047	10.22	1.49
6	IQ	-110	-302	406	207	398		042	143	-173	-151	164	243	233	-117	036	-127	035	001	-015	-003	88.8	13.9
7	Whether born in D.C.	031	070	046	025	073	042		-087	069	129	-018	028	027	-039	003	-051	-066	-055	-038	005	69.7 %	46.0 %
8	Occupation of father (semi-skilled and above vs. all others)	-068	-202	072	136	122	143	-087		-044	-081	126	158	113	-115	002	004	056	-060	-082	016	20.5 %	40.4 %
9	One or more derogatory remarks	164	-029	-190	-221	-224	-173	069	-044		128	-101	-039	-013	-011	042	178	070	-023	056	039	45.2 %	49.8 %
10	Personal qualities rated minus	041	090	-120	-193	-080	-151	129	-081	128		-160	-146	-070	106	-020	030	-024	135	135	047	41.0 %	49.2 %
11	Lack of excessive absences	-149	-058	213	256	252	164	-018	126	-101	-160		019	090	-044	-021	-156	013	-010	-132	-010	2.34	1.05
12	Median years' education of adult population in subject's census tract	-091	-293	174	192	235	243	028	158	-039	-146	019		615	-216	023	-020	048	-008	-122	-040	10.27	1.67
13	Reading level of fourth-grade students in elementary school in subject's census tract	-087	-455	108	148	191	233	027	113	-013	-070	090	615		-180	024	-062	022	-052	-105	-053	3.54	.63
14	Whether in Model School Division	022	129	-113	-118	-173	-117	-039	-115	-011	106	-044	-216	-180		-029	-054	-023	-043	033	142	11.4 %	31.8 %
15	Whether in Boys' Junior-Senior High School	124	029	007	011	-035	037	003	002	042	-020	-021	023	024	-029		153	084	-010	-013	-007	0.6 %	7.9 %
16	Whether in Social Adjustment Classes	109	040	-148	-102	-198	-127	-051	004	178	030	-156	-020	-062	-054	153		022	013	009	006	4.2 %	20.2 %
17	Whether in Twilight School	061	023	030	-008	-010	035	-066	056	070	-024	013	048	022	-023	084	022		-008	-010	-006	0.4 %	6.4 %
18	Whether in STAY Program	024	043	-036	-151	-005	001	-055	-060	-023	135	-010	-008	-052	-043	-010	013	-008		-019	-011	1.4 %	11.8 %
19	Whether in juvenile institutions	077	012	-163	-243	-212	-015	-038	-082	056	135	-132	-122	-105	033	-013	009	-010	-019		017	2.5 %	15.7 %
20	Whether in Urban Service Corps	011	017	014	-068	-047	-003	005	016	039	047	-010	-040	-053	142	-007	006	-006	-011	017		0.8 %	9.0 %

Decimal points omitted

TABLE A-6

Multiple R's for Selected Individual Characteristics and Participation In District of Columbia Anti-Delinquency Programs versus Referral to Juvenile Court

(For cases with complete data only; 17-year-old boys, Wtd N = 2209)

Variable Number	Description	Multiple R
5	Highest grade completed	.262
3	Grade placement, number of years behind grade for age	.393
9	Derogatory remarks by teachers, proportion with one or more derogatory remarks	.411
15	Proportion in Boys' Junior-Senior High School	.423
11	Unexcused absences (3 = none, 2 = 1 to 9, 1 = 10 or more)	.433
4	Proportion still in school	.440
6	IQ	.444
2	Proportion Negro	.446
7	Proportion born in D.C.	.448
17	Proportion in Twilight School	.449
20	Proportion in Urban Service Corps	.450
18	Proportion in STAY Program	.450
16	Proportion in Social Adjustment Classes	.451
12	Median years' education of adult population in subject's census tract	.452
14	Proportion in Model School Division	.452
19	Proportion in juvenile institutions	.452
13	Reading level of fourth-grade students in elementary schools in census tract	.453
10	Personal qualities rated minus (from the ten personal qualities on school records)	.453
8	Occupation of father, proportion whose fathers are semi-skilled and above	.453

TABLE A-7

Intercorrelations Among Selected Individual Characteristics and Participation in District of Columbia Anti-Delinquency Programs -- 17-year-old girls, Wtd N = 1764

Var. No.	Description of Variable	Variable Number 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	18	19	20	Mean	S.D.
1	Whether court referral		021	056	-117	-090	-023	023	003	060	027	-137	-011	-028	-028	-009	108	085	-017	-012	2.4 %	15.4 %
2	Whether Negro	021		-096	-087	-137	-337	-015	-354	089	179	-105	-402	-597	155	-005	047	056	043	030	86.1 %	34.6 %
3	Grade placement, number of years behind grade for age	056	-096		234	659	474	075	223	-193	-268	218	245	203	-143	009	-102	008	-244	-138	1.50	1.10
4	Whether still in school	-117	-087	234		515	226	033	014	-125	-116	305	256	175	-107	032	-030	-141	-070	-050	77.4 %	41.8 %
5	Highest grade completed	-090	-137	659	515		415	060	139	-222	-237	248	327	286	-177	024	-120	-086	-232	-137	10.58	1.42
6	IQ	-023	-337	474	226	415		012	270	-168	-287	180	362	402	-103	-027	-113	-061	-142	-110	91.1	14.7
7	Whether born in D.C.	023	-015	075	033	060	012		069	-005	-070	065	-073	-030	-025	-004	-094	092	-047	049	70.1 %	45.8 %
8	Occupation of father (semi-skilled and above vs. all others)	003	-354	223	014	139	270	069		-084	-186	-006	242	355	-082	-008	007	-066	071	050	22.4 %	41.7 %
9	One or more derogatory remarks	060	089	-193	-125	-222	-168	-005	-084		090	-066	-050	-140	076	072	095	056	078	094	39.5 %	48.9 %
10	Personal qualities rated minus	027	179	-268	-116	-237	-287	-070	-186	090		-242	-181	-191	164	020	144	004	037	106	33.8 %	47.3 %
11	Lack of excessive absences	-137	-105	218	305	248	180	065	-006	-066	-242		141	106	-083	032	-017	-016	-069	-049	2.54	.84
12	Median years' education of adult population in subject's census tract	-011	-402	245	256	327	362	-073	242	-050	-181	141		669	-197	006	-064	047	-164	-042	10.28	1.79
13	Reading level of fourth-grade students in elementary school in subject's census tract	-028	-597	203	175	286	402	-030	355	-140	-191	106	669		-183	-004	-041	-029	-074	-045	3.61	.78
14	Whether in Model School Division	-028	155	-143	-107	-177	-103	-025	-082	076	164	-083	-197	-183		-022	-045	-042	198	083	12.9 %	33.6 %
15	Whether in Webster School for Girls	-009	-005	009	032	024	-027	-004	-008	072	020	032	006	-004	-022		-007	-008	-006	-004	0.3 %	5.8 %
16	Whether in Social Adjustment Classes	108	047	-102	-030	-120	-113	-094	007	095	144	-017	-064	-041	-045	-007		-016	-012	-009	1.4 %	11.6 %
18	Whether in STAY Program	085	056	008	-141	-086	-061	092	-066	056	004	-016	047	-029	-042	-008	-016		-015	264	1.9 %	13.8 %
19	Whether in juvenile institutions	-017	043	-244	-070	-232	-142	-047	071	078	037	-069	-164	-074	198	-006	-012	-015		348	1.1 %	10.6 %
20	Whether in Urban Service Corps	-012	030	-138	-050	-137	-110	049	050	094	106	-049	-042	-045	083	-004	-009	264	348		0.6 %	7.5 %

Decimal points omitted

TABLE A-8

Multiple R's for Selected Individual Characteristics and Participation In District of Columbia Anti-Delinquency Programs versus Referral to Juvenile Court

(For cases with complete data only; 17-year-old girls, Wtd N = 1746)

Variable Number	Description	Multiple R
5	Highest grade completed	.090
3	Grade placement, number of years behind grade for age	.178
11	Unexcused absences (3 = none, 2 = 1 to 9, 1 = 10 or more)	.221
16	Proportion in Social Adjustment Classes	.244
18	Proportion in STAY Program	.253
9	Derogatory remarks by teachers, proportion with one or more derogatory remarks	.256
14	Proportion in Model School Division	.259
20	Proportion in Urban Service Corps	.261
7	Proportion born in D.C.	.263
4	Proportion still in school	.264
12	Median years' education of adult population in subject's census tract	.264
8	Occupation of father, proportion whose fathers are semi-skilled and above	.265
6	IQ	.266
13	Reading level of fourth-grade students in elementary schools in census tract	.266
2	Proportion Negro	.266
19	Proportion in juvenile institutions	.266
15	Proportion in Webster School for Girls	.266
10	Personal qualities rated minus (from the ten personal qualities on school records)	.266

TABLE A-9

Rotated Factor Loadings for Eight Factors Extracted by Factor Analysis* from Selected Individual, School, and Neighborhood Characteristics

(Incomplete data; 17-year-old boys, N = 1052 maximum -- 688 minimum)

Var. No.	Description of Variable	Factors							
		Educational Level 1	Neighborhood 2	Personal Qualities 3	Boys Jr-Sr High School Social Adjustment Classes 4	Court Referral 5	Urban Service Corps 6	STAY Program 7	Father's Occupation 8
1	Whether court referral	010	-146	024	049	-808	016	-016	143
2	Whether Negro	-058	-583	048	103	084	-177	046	428
3	Grade placement, number of years behind grade for age	831	-009	-090	-085	-008	-067	026	-043
4	Whether still in school	326	078	-320	110	563	-020	-116	222
5	Highest grade completed	734	075	-099	-068	442	-073	061	-020
6	IQ	605	258	-141	-012	020	201	-028	-226
7	Whether born in D.C.	392	-055	522	-002	-145	-107	-107	110
8	Occupation of father (semi-skilled and above vs. all others)	088	127	-181	142	021	-195	-143	-708
9	One or more derogatory remarks	-194	080	265	343	-290	019	-346	020
10	Personal qualities rated minus	-123	-096	725	016	152	106	075	025
11	Lack of excessive absences	214	-029	-575	-004	191	016	-071	-049
12	Median years' education of adult population in subject's census tract	062	803	-027	040	083	-119	039	061
13	Reading level of fourth-grade students in elementary school in subject's census tract	054	848	-023	009	127	-057	-022	-003
14	Whether in Model School Division	-246	-296	262	-161	212	308	-181	-127
15	Whether in Boys' Junior-Senior High School	014	002	-103	738	051	-013	024	013
16	Whether in Social Adjustment Classes	-106	-039	142	732	-083	096	046	-036
17	Whether in Twilight School	-040	142	-132	142	-168	-078	-305	477
18	Whether in STAY Program	-005	019	065	106	-704	-041	867	035
19	Whether in juvenile institutions	-242	-023	-156	-003	-333	529	089	148
20	Whether in Urban Service Corps	113	-014	053	099	051	760	-029	009

Decimal points omitted

*Program written by Dr. Arthur D. Kirsch. For details of the Varimax Rotation see Harmon, Harry H., Modern Factor Analysis, Chicago: University of Chicago Press, 1960.

TABLE A-10

Rotated Factor Loadings for Nine Factors Extracted by Factor Analysis*
from Selected Individual, School, and Neighborhood Characteristics

(Incomplete data; 17-year-old girls, N = 582 maximum -- 400 minimum)

		Factors								
		Educational Level	Neighborhood	Court Referral	Urban Service Corps - Juvenile Institutions	Webster School for Girls	Born in D.C.	STAY Program	Social Adjustment	Personal Qualities
Var. No.	Description of Variable	1	2	3	4	5	6	7	8	9
1	Whether court referral	216	-093	-758	032	026	-107	197	-203	-117
2	Whether Negro	041	-754	059	-027	012	-074	076	-051	108
3	Grade placement, number of years behind grade for age	872	032	-069	-141	-034	076	039	048	-096
4	Whether still in school	402	087	642	017	-009	-100	-017	-086	-029
5	Highest grade completed	769	119	323	-162	-019	092	-009	084	-032
6	IQ	550	454	002	021	-139	043	-150	068	-213
7	Whether born in D.C.	017	-142	029	-089	008	844	161	093	-012
8	Occupation of father (semi-skilled and above vs. all others)	167	374	-061	106	-055	575	-233	-145	-037
9	One or more derogatory remarks	-276	-013	-176	116	640	022	-114	-151	-038
10	Personal qualities rated minus	-140	-137	-049	-021	072	-029	028	-114	852
11	Lack of excessive absences	206	-008	583	058	029	-000	085	-065	-403
12	Median years' education of adult population in subject's census tract	162	771	091	-102	074	-082	100	-003	-015
13	Reading level of fourth-grade students in elementary school in subject's census tract	098	872	072	-062	-049	009	004	-009	-003
14	Whether in Model School Division	-027	-208	-040	502	-086	-022	-226	343	383
15	Whether in Webster School for Girls	122	007	124	-039	837	-055	045	105	060
16	Whether in Social Adjustment Classes	-081	-058	-044	102	023	-021	-065	-888	089
18	Whether in STAY Program	-007	-018	-122	053	-048	031	895	062	004
19	Whether in juvenile institutions	-145	-063	-086	755	062	-088	-071	005	-181
20	Whether in Urban Service Corps	-084	010	119	705	026	089	295	-234	117

Decimal points omitted

*Program written by Dr. Arthur D. Kirsch. For details of the Varimax Rotation see Harmon, Harry H., Modern Factor Analysis, Chicago: University of Chicago Press, 1960.

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